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BOROUGH OF MANSFIELD

ANNUAL REPORT

ON THE

HEALTH & HEALTH SERVICES
SANITARY CONDITIONS
. . AND HOUSING . .

FOR THE

Year ended 31st December, 1946

BY

IAN A. G. MacQUEEN

M.A., M.B., Ch.B., D.P.H.

Medical Officer of Health

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M.A., M.B., CH.B., D.P.H.
Medical Officer of Health

W. H. LEE & SONS, LTD. MANSFIELD
1947

Health Committee.

(As at 31st December, 1946.)

Chairman :

THE WORSHIPFUL THE MAYOR,
(Mrs. Alderman E. Wainwright, O.B.E., J.P.)

Aldermen :

H. BAGGALEY, J.P.
T. KNAPTON
T. PEMBLETON

Councillors :

C. DAVEY
C. HARRISON
C. H. LANGHAM
Mrs. M. E. MARRIOTT, J.P.
Mrs. MILFORD
I. E. PICKARD
H. W. SIMPSON
H. TAYLOR

Maternity & Child Welfare Committee.

(As at 31st December, 1946.)

Chairman :

MRS. COUNCILLOR M. E. MARRIOTT, J.P.

THE WORSHIPFUL THE MAYOR,
(Mrs. Alderman E. Wainwright, O.B.E., J.P.)

Aldermen :

H. BAGGALEY, J.P.
T. PEMBLETON

Councillors :

C. DAVEY
C. HARRISON
C. H. LANGHAM
Mrs. A. MILFORD
I. E. PICKARD

Co-opted Members :

Mrs. BAXTER
Mrs. CHALLONER
Mrs. RICHARDSON
Mrs. SMITH

Staff Changes during 1946.

Under the new Education Act Mansfield's Temporary Deputy Medical Officer of Health, Dr. D. S. Williams, automatically became a County Assistant Medical Officer for two thirds of her time. The Corporation having notified the County Council that it desired to appoint a full-time officer, Dr. Williams was transferred to the service of the County Council on 18th September ; and on the same date Dr. I. Caley, formerly Assistant County Medical Officer for Caernarvonshire, took up duty as full-time Deputy Medical Officer of Health.

Mr. H. Jordan Malkin resigned his post as Gynaecological Consultant on 10th September and was succeeded by Miss C. Bates. Dr. J. McNabb was engaged on 4th July as an additional part-time Assistant Medical Officer employed on a sessional basis.

Miss R. E. Hermes resigned her appointment as Non-Medical Supervisor of Midwives and Superintendent Health Visitor on 21st October, on taking up a similar post under the County Council ; and Miss N. M. Ward was appointed to the vacant post on the same date.

At the beginning of the year there were two vacancies for Additional Sanitary Inspectors. Mr. G. Pennistone commenced duty on 14th January but resigned on 31st July. Mr. M. Carter was appointed on 19th March but resigned on 28th November. Before the end of the year Messrs. F. Skirrow and H. Johnson had been appointed but at 31st December they had not yet commenced duty. Mr. D. Fogg was appointed as Pupil Sanitary Inspector on 1st April.

Miss E. M. Amery was appointed as a temporary Health Visitor on 1st January and transferred to the midwifery service on 11th March. Mrs. L. E. Fowler and Mrs. C. Merricks commenced duty as temporary Health Visitors on 27th May and 16th September respectively. Mrs. Merricks resigned on 30th November.

Miss A. Hauxwell resigned her appointment as Municipal Midwife on 9th March, Mrs. J. Calver resigned on 31st May, and Mrs. R. E. Bestwick resigned on 30th June. Miss E. M. Amery commenced duty as a Municipal Midwife on 11th March, and Mrs. E. M. Thomas took up duty on 1st October and resigned on 20th December.

Mrs. K. Dean resigned her appointment as Matron of Ravensdale Day Nursery on 16th November, and Mrs. C. E. Pargeter commenced duty on 18th November.

Miss B. R. Stockdale resigned from the clerical staff on 18th January ; and Misses E. Smith, E. Fletcher and M. Smith took up duty on 7th January, 11th March and 7th August respectively.

Changes in the hospital staff are summarised in the appropriate section of the Report.

Public Health Staff.

As at 31st December, 1946.

Medical Officer of Health	I. A. G. MacQueen, M. A., M.B., Ch.B., D.P.H., M.R.San.I.
Deputy Medical Officer	Miss I. Caley, M.A., B.Chir., D.P.H.
Assistant Medical Officers for Maternity & Child Welfare (part-time)	Miss Mary M. Sillito, M.B., B.S. Miss D. Douglas-Norman, M.R.C.S., L.R.C.P., D.P.H. J. McNabb, M.A., B.Sc., M.B., Ch.B., D.P.H.
Consultant Ophthalmic Surgeon (part-time)	A. C. Reid, M.A., M.D., B.Sc., D.O.
Consultant Paediatrician (part time)	J. Wilkie Scott, M.C., M.D., F.R.C.P.
Consultant Gynaecologist	Miss C. Bates, M.B.,Ch.M.,M.R.C.O.G.
Public Analyst (Food & Drugs) (part time)	W. W. Taylor, B.Sc., F.R.I.C.
Senior Sanitary Inspector	H. N. Eardley, San. Insp. Cert., Cert. in Meat Inspection, M.R.San.I.
Deputy Senior Sanitary Inspector	G. Spencer, San.Insp.Cert., Cert. in in Meat Inspection.
Additional Sanitary Inspectors	Two vacancies.
Pupil Sanitary Inspector	D. Fogg.
Superintendent Health Visitor and Supervisor of Midwives	Miss N. Ward, S.R.N., S.C.M., H.V.
Health Visitors	Mrs. P. Florence, S.R.N., S.C.M. (temporary). Mrs. L. Fowler, S.R.N, S.C.M. (temporary acting)

	Mrs. L. Naylor, S.R.N. (temporary, acting).
	Mrs. P. Turner, S.R.N. (temporary acting).
	Two Vacancies.
Matron, Forest Fever Hospital	Miss F. B. Weaver, S.R.N., S.R.F.N., S.C.M.
Matron, Bull Farm Nursery	Miss G. Glucksmann, S.R.N.,S.R.C.N. (Austria), S.C.M. (Austria), D.N.
Matron, Ravensdale Nursery	Mrs. C. E. Pargeter, S.R.C.N.
Municipal Midwives	Miss E. M. Amery, S.R.N., S.C.M.
	Miss A. Berridge, S.R.N., S.C.M.
	Miss D. Brown, S.R.N., S.C.M.
	Mrs. D. M. Bullough, S.R.N., S.C.M.
	Miss A. Thorpe, S.R.N., S.C.M.
	Miss E. A. Ward, S.R.N., S.C.M.
	Mrs. W. M. Wilson, S.R.N., S.C.M.
	Two Vacancies.
Chief Clerk and Bacteriological Assistant	E. V. Hardwick.
Senior Clerk and Medical Officer's Secretary	Mrs. M. J. Brown.
Senior Clerk (Maternity & Child Welfare)	Miss M. L. Bettison.
Senior Clerk (Sanitation)	Miss E. Smith.
Clerks	Miss E. Fletcher
	Miss B. Stebbings.
	Miss M. Smith.
Disinfector	George Davis.
Ambulance Driver	George Harris.
Rat Catcher	W. Kelly.

VOLUNTARY HELPERS AT CLINICS.

St. John's Street—

- Mrs. Anderson
- Mrs. Coleman
- Mrs. Henderson
- Mrs. Pincham
- Mrs. Summerfield
- Mrs. Cawood
- Mrs. Edey
- Mrs. Orange
- Mrs. Marsh
- Mrs. Sylvester

Pleasley—

- Mrs. Whittaker

St. Lawrence's—

- Mrs. Chadburn
- Mrs. F. S. Smith
- Mrs. Harrington

Brownlow Road—

- Mrs. Shelton
- Mrs. Marsh
- Mrs. Summerfield

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PUBLIC HEALTH DEPARTMENT,
GILCROFT STREET,
MANSFIELD.

YOUR WORSHIP, LADIES AND GENTLEMEN,

I have the honour to present my fourth Annual Report.

It was said last year that " 1945 stands out in the history of the Borough as a year in which the figures are far better than ever before." However, 1946 was in almost every respect better still.

If you turn to the statistical section of this Report you will see that the Maternal Death-rate, which in 1945 reached a new low record of 1.09 per 1,000 births, fell in 1946 to the unbeatable figure of zero ; that the infantile mortality rate, which dropped dramatically in 1945, fell further in 1946 ; that the deaths from infantile diarrhoea and enteritis, which last year reached a very low figure, have touched a new low record in 1946 ; that the Still-birth rate in 1946, is the second lowest in the history of the Borough, being a shade higher than the 1945 figure ; that the birth-rate is higher than in 1945 ; and that the general death-rate is lower than in 1945. You will observe also that in five of the six figures just mentioned the Mansfield rates are better than the figures for the country as a whole. In the statistical section this year I have introduced two new yardsticks for measuring health, the sex-ratio at birth and the combined child death rate : by both measurements Mansfield was healthy in 1946, and much better in 1946 than in previous years.

If you turn to the section on infectious diseases you will find that the immunisation campaigns of 1945, and 1946, have raised the proportion of children protected against diphtheria to approximately four fifths of the entire child population, and that diphtheria has virtually been eliminated from the town, only six cases occurring in 1946. You will find that scabies is ceasing to be prevalent in Mansfield. You will see that there were no epidemics during the year, that the number of notifications of infectious diseases was by far the lowest on record, and that not a single Mansfield child died in the Fever Hospital. You will be reminded that you instituted immunisation against Whooping Cough in the autumn of 1946, that you adopted a policy of hospitalising selected cases of measles and whooping cough, that in 1946, Mansfield was so free from infections that you were able to place 40% of the Fever Hospital beds at the disposal of less fortunately placed Authorities, that (although costs are everywhere rising) the cost of the Fever Hospital to the ratepayers of Mansfield has fallen steadily in the last two years, and that the wartime increase in the incidence of Tuberculosis has at last been replaced by a sharp decrease.

If you look at the section on housing you will see that the number of inspections made was about 600 more than in 1945. And in the report of the Chief Sanitary Inspector you will find the number of samples of graded milk taken for bacteriological examination was 245 in 1946, as compared with 133 in 1945, and 38 in 1944; the number of specimens of milk Gerber-tested has risen from 123 in 1945 to 398 in 1946; and the number of samples taken under the Food and Drugs Act was higher in 1946 than in previous years.

If you turn to the section on maternity and child welfare you will find that the number of attenders at the clinics was far higher than ever before: that the Health Visitors paid more home visits than in any previous year; that more patients received ultra-violet light treatment than ever before; and that more expectant mothers were admitted to hospital than in any past year. You will be reminded that in 1946, you brought into operation most of the developments and extensions visualised in the 1945 Report on Post-War Needs; you decided to retain the Day Nurseries as permanent portions of your Child Welfare Services; you developed your scheme for the care of premature babies and you took the initial steps towards providing blood examinations of expectant mothers for the Rh factor; and—by no means least—realising that it is a stain on our civilisation that women suffering from conditions like tuberculosis should have to endanger their lives by bearing children simply because no facilities exist for advice on birth control—you took the first steps towards the setting up of a Family Planning Clinic.

All these facts and figures are very satisfactory: it is gratifying to know that the vital statistics for 1946 are better than for the previous "record" year of 1945, to learn that the public health has improved, and to realise that the tempo of progress has been maintained.

Something has been done. Much remains to do. Let me invite attention to a few matters :—

(a) Housing is Mansfield's gravest health problem. Certainly building materials and sanitary fittings are in short supply ; certainly the Government is rightly giving priority to towns that suffered severely from bombs ; certainly everything possible is being done. But there can be no relaxation. Indeed, when overcrowding ceases to be a pressing problem, the time will be ripe for an extensive programme of slum clearance and rehousing.

(b) One of the factors on which communal health depends is the thorough and systematic performance of the work of sanitary inspection. During a good part of 1946, you have been two inspectors short ; Mr. Eardley and Mr. Spencer have toiled mightily, but two men cannot do the work of five. Even when you have your quota of four inspectors, that is hardly sufficient for a town of 50,000 inhabitants. Housing inspection is generally carried out, but the systematic inspection of conditions in offices has to be deferred year after year, and inspection of shops is perforce reduced to a bare minimum.

(c) Smoke belches from factory chimneys and from the chimneys of miners' houses : it vitiates the air, filling the atmosphere with soot particles and obstructing the sun's rays ; it increases the incidence of respiratory diseases ; it impedes the growth of vegetables ; it corrodes metals ; it blackens buildings. Sooner or later—and preferably sooner—the problem of smoke must be tackled.

(d) The quality of the town's food is assured, but attention might profitably be directed to the handling of that food : for example, in certain shops scones and loaves are exposed to a spray of bacteria from customers' breaths, instead of being placed under glass covers ; and in the market, vendors of food have inadequate washing facilities.

(e) We are beginning to provide accommodation—like the Woodlands Hostel—for healthy old people and hospital care for diseased old people, and the 1946 Act will provide a complete curative medical services for old and young alike ; but, while the young have preventative services—ante-natal, child welfare, school health service, etc., there is as yet no preventative service for the elderly. We can give expert dietetic advice to the young, but—although the slowing of metabolic processes with advancing years inevitably raises new problems of nutrition—nobody studies dietetics in relation to the elderly ; we try to deal with the psychological difficulties of childhood and adolescence but we ignore the problems of the man passing suddenly from full functional activity to " the horror of the perpetual holiday " ; we have hardly begun to consider whether we cannot in many cases do anything to retard the onset of senescence. I laid before you at the end of 1946 a suggestion for the establishment of a clinic for elderly persons, but you decided to defer your decision until the other new clinics had become established.

(f) Although the School Health Services passed to the control of the County Council in April of 1945, everything pertaining to the health of the community concerns you. You must therefore view with dismay the recent deterioration of the school health services. In particular you must regret that—ever since April of 1945—Mansfield children with speech defects have lacked the care of a speech therapist, that nowadays children requiring removal of tonsils and adenoids merely have their names entered on an enormous and ever-growing waiting list, and that vacancies occurring from time to time in the school medical and nursing staff remain unfilled.

Undoubtedly much remains to do, but this need not dull your satisfaction at the progress made in your services in 1946. 1945 was, by and large, the best year in the history of your health services. To have made 1946 a better year is no mean achievement.

The national legislation of 1946, will have a profound effect on the health of the people and on the organisation and administration of your services. I have therefore appended to this Report a brief review of those portions of the year's legislation that would appear to have a direct bearing on the health and health services of Mansfield.

This will be the last Annual Report which I shall have the honour of presenting to you. May I express my deep personal gratitude for much kindness and help during the last four years to Mr. Councillor Pickard (Chairman of the Health Committee till November of 1946), Mrs. Alderman Wainwright (Chairman of the Health Committee since November), Mrs. Councillor Marriott (Chairman of the Maternity and Child Welfare Committee), and to the members of the Corporation generally ; and my warm thanks for loyal co-operation to Dr. Caley (Deputy Medical Officer of Health) in whose competent hands your services will be safe between my departure and the arrival of my successor, Mr. Eardley (Chief Sanitary Inspector), Miss Ward (Supervisor of Midwives and Superintendent Health Visitor), Mr. Hardwick (Chief Clerk), and all members of the Public Health Staff. I would also wish to thank the ladies—listed on another page—who have rendered valuable voluntary service at the various clinics.

Health is the most valuable possession of any individual or of any community. I hope that in future years Mansfield will be even healthier than it was in 1946.

Your obedient servant,

I. A. G. MACQUEEN,

Medical Officer of Health.

22nd July, 1947.

Statistical Summary.

1.—General Statistics.

Area in acres	7,009
Number of Inhabited houses (end of year 1946)	14,047
Rateable Value	£315,566
Sum represented by a penny rate	£1,226/6/5
Civilian Population (estimated at middle of year)	49,150

2.—Vital Statistics.

To facilitate reference the statistics are given below without comment. The significance of the figures is considered in the next section.

BIRTHS.

	Males.	Females.	Total.
Legitimate	453	420	873
Illegitimate	35	37	72
Totals	488	457	945

Birth-rate 19.2 per 1,000 population.

SEX-RATIO AT BIRTH.

Legitimate	108 boys per 100 girls.
Illegitimate	95 boys per 100 girls.
Total	107 boys per 100 girls.

STILLBIRTHS.

	Males.	Females.	Total.
Legitimate	15	8	23
Illegitimate	1	—	1
Totals	16	8	24

Rate per 1,000 (live & still) births 24.7.

DEATHS.

	Males.	Females.	Total.
Deaths	283	262	545

Death-rate 11.0 per 1,000 population.

INFANT DEATHS.

	Males.	Females.	Total.
Legitimate	28	12	40
Illegitimate	3	1	4
Totals	31	13	44

Infantile Mortality Rate 46.5 per 1,000 live births.

Legitimate Infantile Mortality Rate per 1,000 legitimate live births—45.8

Illegitimate Infantile Mortality Rate per 1,000 illegitimate live births—55.5

MATERNAL DEATHS.

	Deaths.	Rate per 1,000 total (live & still) births.
(a) From Puerperal Sepsis	—	0.00
(b) From other Maternal causes	—	0.00

DEATHS FROM CERTAIN INFECTIONS.

(a) From Measles (all ages)	0
(b) From Whooping Cough (all ages)	1
(c) From Diarrhoea (under 2 years)	3
(d) From Diphtheria (all ages)	0

COMBINED PRE-NATAL AND POST-NATAL CHILD DEATHS.

Legitimate rate	70.3 still-births and infant deaths per 1,000 total births.
Illegitimate rate	68.5 still-births and infant deaths per 1,000 total births
Total rate	70.1 still-births and infants deaths per 1,000 total births.

3.—Notes on Vital Statistics.

(a) General Picture.

Of the established indices of the state of a town's health and health services, the three most sensitive are probably the infantile mortality, still birth, and maternal death rates. It is particularly pleasing to note that Mansfield's figures for 1945 and 1946, in respect of these indices are far better than are the figures for any previous period of two years. It is also satisfactory that, although 1945, was regarded as a year of records, the 1946 figures are on the whole better than those for 1945.

Two other useful yardsticks for measuring health are the sex-ratio at birth and the combined child death rate (infant-deaths and still-births). The value of these indices, which are not yet in common use, is fully discussed later. Suffice it here to note that, by these methods of measurement, Mansfield's figures are highly satisfactory and better than in previous years.

(b) Birth Rate and Death Rate.

The Birth-rate of 19.2 per 1,000 of population is higher than last year's figures but not so high as the record figure for 1944. The birth-rate has now been high for four consecutive years as the following table will show :—

Year	Birth-rate per 1,000 Population.
1937	14.5
1938	14.9
1939	15.4
1940	15.4
1941	14.9
1942	17.6
1943	19.5
1944	21.5
1945	18.9
1946	19.2

The **General Death Rate** of 11.0 per 1,000 of population is lower than the 1945 rate of 11.2, which in turn was lower than the 1944 rate of 11.9.

The " **Natural Increase** " (i.e. the increase of births over deaths) is 400. Figures for recent years are given in the following table, and it is interesting to note that the four highest natural increases in the last twenty years occurred in 1943, 1944, 1945, and 1946.

Year	Natural Increase.
1940	114
1941	223
1942	312
1943	372
1944	445
1945	355
1946	400

Mansfield had a higher birth-rate and a lower death-rate than had England and Wales as a whole :—

	Mansfield.	England and Wales.
Birth-rate	19.2	19.1
Death-rate	11.0	11.5

(c) Maternal Deaths.

One of the most gratifying features of the year's statistics is the continued reduction in the **Maternal Death-rate.** In my Annual Report for 1945, I had the honour to inform you that the maternal death-rate was the lowest ever recorded in the Borough and far below the national average. 1946, however, has established a new and unbeatable figure of no maternal deaths.

It is interesting to notice the progressive reduction in maternal mortality during recent years :—

Year.	Maternal Death-rate per 1,000 births Mansfield.	England & Wales.
1942	4.56	2.01
1943	3.23	2.29
1944	2.89	1.93
1945	1.09	1.79
1946	0.00	1.43

(d) **Still-Births and Infant Deaths.**

The proportion of **Still-births,** which reached a record low level in 1945, has remained at almost the same level. Before the war Mansfield generally had about 50 still-births per 1,000 births, and the figures for recent years are as follows :—

Year.	Still-births per 1,000 total births	Still-births per 1,000 population.
1942	45.6	0.84
1943	28.0	0.56
1944	28.8	0.64
1945	21.8	0.42
1946	24.7	0.48

The Mansfield figures for 1945 and 1946 are, of course, well below the averages for the country as a whole.

The reduction in **Infantile Mortality** is also very satisfactory. You will recall that in the Annual Report for 1945, although recording a substantial fall in the infant death rate for that year, I stressed that infantile mortality had long been the most unsatisfying feature of Mansfield's statistics, analysed in some detail the causes of infant deaths and outlined possible preventative measures. This year I have to report that there has been a further dramatic fall. For the five years immediately preceding the war the average infantile mortality rate in Mansfield was 65 ; in 1944 it was 72.5 ; in 1945 it was 53.7 ; and in 1946 it was 46.5, a figure which has been beaten only once in the entire history of the Borough.

It has to be noted, however, that the infantile mortality rate has been falling throughout the country, and that the very welcome reduction in Mansfield has brought the rate down only to a figure about the average for towns of similar size. There is still plenty of room for improvement as the following comparative figures will show ;—

Infantile Mortality per 1,000 of population.

Year.	Mansfield.	126 Great Towns (over 50,000)	148 Smaller Towns. (25,000—50,000)
1944	.... 72.5	52	44
1945	.... 53.7	54	43
1946	.... 46.5	46	37

(e) **Combined Pre-Natal and Post-Natal Child Death-Rate.**

Where children fail to attain the age of one year the deaths are normally classified in two categories—still-births and infant deaths. Infant deaths, however, really fall into two groups : a group (where in most cases death occurs before the child is four weeks old) due to causes operating before the child was born—e.g. poor health of the mother, or difficult labour ; and a group (where in most cases the child survives for longer than four weeks) due to causes operating after the child was born—e.g. enteritis or pneumonia. We thus have three classes of deaths—still-births, deaths due to pre-natal causes, and deaths due to post-natal causes. Until comparatively recent years the third of these classes was the one to which most attention was paid ; the deaths due to pre-natal causes were largely regarded as inevitable, and still-births were not made notifiable until 1928. However, as improved control of environmental hygiene has steadily reduced the proportion of deaths due to post-natal causes, the necessity of studying the other two groups has been more and more realised.

The causes of deaths of young infants (under 28 days) are much more closely related to the causes of still-births than to the causes of deaths to older infants. It is therefore desirable—instead of considering Still-births and Infant Deaths as two separate categories—to use a combined Pre-natal and Post-natal Death-Rate, and then to subdivide this combined figure into two sections—still-births and young infant deaths, and older infant deaths.

The combined rates for 1946, and previous years are as follows :—

Year.	Stillbirths and infant deaths per 1,000 (live and still) births.
1944	99.4
1945	74.5
1946	70.1

Subdivided into the group due to pre-natal causes and the group due to post-natal or environmental causes, the figures are :—

Year.	Still-births and deaths of infants under 28 days per 1,000 total births.	Deaths of infants over 28 days per 1,000 total births.
1944	62.7	36.7
1945	46.0	28.5
1946	52.6	17.5

The figure of 17.5 for deaths of infants over one month—by far the lowest figure yet obtained in the Borough—suggests that environmental hygiene and the care of infants are generally satisfactory, although this does not mean that the mortality rate cannot be even further reduced. The figures for still-births and neo-natal deaths reached a new record in 1945, and the 1946 figure is the second lowest in the history of the Borough : but, although 1945 and 1946 are our best years, they cannot be allowed to remain as the best. With adequate maternity hospital accommodation and a full establishment of domiciliary midwives it should be possible substantially to reduce the still-births and neo-natal deaths.

(f) Illegitimate Children.

The **Illegitimate Birth-Rate** remains high at 7.6 of total births, as compared with 7.3% last year. A high illegitimate birth-rate during, and shortly after, a war is not an uncommon phenomenon.

The **illegitimate still-birth rate** of 13.7 per 1,000 illegitimate births was appreciably lower than the rate for legitimate still-births ; and the **illegitimate infantile mortality rate** of 55.5 was only a little higher than the legitimate rate. From these facts we can deduce that unmarried expectant mothers and illegitimate infants are certainly not neglected in Mansfield.

(g) Deaths From Certain Infections.

It is interesting to tabulate the deaths from certain infections in recent years and to study the decrease :—

Deaths from :—	1944	1945	1946
Measles	0	1	0
Whooping Cough	3	3	1
Diarrhoea	12	4	3
Diphtheria	2	2	0

(h) The Sex-Ratio at Birth.

Since the **Sex-Ratio** is not yet in common use as a measure of a community's health and social services, a brief explanation is desirable.

The established measures—infantile mortality rate, still-birth rate, etc.—are of considerable value but are subject to occasional distortion. If we have (as in Mansfield in 1946) 24 still-births, 24 infants dying during the first week of life from causes similar to those that produced the still-births, and 20 infants dying after the first week through environmental causes, then comparatively slight changes in the maternal circumstances might convert some of the early infant deaths into still-births—giving us a much higher still-birth rate and a lower infant death rate ; or equally slight changes might make some of the " still-births " survive till an hour or two after birth—giving us a higher infant death rate and a lower still-birth rate. This difficulty can be met by combining the infant deaths and still-births (as has been done in Section (*e*) of this Report) to obtain a combined pre-natal and post-natal child death-rate. Even this combined rate, although it is more reliable than either the infant death rate or the still-birth rate by itself, is subject to distortion at both ends of the scale.—If we consider a woman who would normally have had an unrecorded miscarriage but whose unborn child is enabled by improved ante-natal care to survive long enough to become a still-birth, we have there an instance of improved conditions apparently increasing the death rate. Again, a few weeks of abnormal weather or an epidemic of a disease that we have not yet learned to control may kill a number of babies and so give an increased death-rate which completely masks an improvement in a town's health services. Conversely, where a town's services are deteriorating, the mere absence of a period of very bad weather might prevent the death rate from showing an increase.

There is no suggestion that we should discard the established indices, but in view of their liability to occasional distortion, a new measure of a community's health would be welcome. The sex-ratio is such an additional measure.

The whole basis of the use of the sex-ratio is the fact that males are more fragile and more easily killed than are females, and that nature compensates by producing more males. If we could obtain the ratio at conception we would probably find about 140-150 males per 100 females ; if we study the sex of early abortions we find about 120 males per 100 females ; in still-births the ratio is about 110 to 100 ; at birth it is about 105 boys to 100 girls ; by adolescence the numbers are equal ; and in adult life females preponderate.

Since males are more fragile, unfavourable conditions tend to react more on the unborn boys than on the unborn girls. Professor Crew and others have shown that the sex-ratio is low (e.g. 101 boys per 100 girls born) in conditions of poverty, ignorance, too frequent pregnancies and bad hygiene. Among illegitimates, for example, the sex ratio at birth is appreciably lower than among legitimates. The ratio tends to be high (e.g. 108 boys per 100 girls born) in good social and economic circumstances, healthy districts, and people who space their pregnancies properly.

As Crew puts it, "Movements in the secondary sex-ratio (i.e. the sex-ratio at birth) can therefore be used as a measure of the success or otherwise of the social services, of slum clearance, of the general health of a community."

Employing the sex-ratio as a biological yardstick to measure changes in the health and social circumstances of the community has several advantages. Where abortions or miscarriages or still-births are numerous the sex-ratio will be reduced,—whereas the still-birth rate by itself does not give us any evidence about miscarriages or abortions. Again, a really virulent epidemic tends to affect equally the unborn children of both sexes and so does not change the sex-ratio materially,—whereas such an epidemic has a tremendous effect on the infantile death-rate.

Broadly we can say that, per 100 girls born, a ratio of 104 or 105 boys is about average ; 106 would suggest that the community was fairly healthy ; 103 or less would suggest that the health services (including housing, etc.) required improvement.

Mansfield with just under a thousand births per annum is perhaps on the small side for the use of this new measure. However, the sex-ratio is at least a useful supplement to the other indices.

Here are the ratios for 1946 and 1945 :—

No. of boys born per 100 girls.

	Legitimate	Illegitimate	Total
1945	100	91	99
1946	108	95	107

The figures for 1945, suggest that the health services were then in need of extension and improvement ; the figures for 1946, suggest that the extensions actually made in 1945 are now bearing fruit.

(*Note.*—Although I am not aware of this index having yet been used in the report of any Medical Officer of Health, I must disclaim all suggestion of originality. The man who demonstrated the value of the sex-ratio is Professor Crew. My function has merely been to handle the weapon that he has forged.)

Prevention of Infant Deaths.

In the Annual Report for 1945, a detailed analysis of infant deaths was introduced by the following paragraph :

> "Although the Stillbirth rate and the Maternal Mortality rate for 1945 were much lower than ever before in the history of the Borough and were well below the average figures for the country, the Infantile Mortality rate, while falling dramatically from the figure for 1944, was still above the average for the country as a whole. An analysis of the infant deaths is therefore desirable, since it is only by investigating past results that one can form a sound basis for future planning."

In 1946, while the Maternal Mortality rate dropped to zero and the Stillbirth rate remained low, the Infantile Mortality-rate fell by another seven per thousand births. It should, however, be possible to reduce this rate still further.

While it seems unnecessary to repeat last year's very detailed investigation, it will perhaps be useful to summarise the main causes of death and to stress a few fundamental points. Here are the figures for the 92 infant deaths in 1945 and 1946.

(a) **Environment Causes.**

Age.	Respiratory Diseases	Gastro-Enteritis.	Other Environmental Causes.	Total
Over 1 month....	22	8	10	40
2-4 weeks	1	—	1	2
1-2 weeks	1	—	—	1
Under 1 week....	—	—	1	1
Total	24	8	12	44

(b) Pre-Natal Causes, Birth Injuries, etc.

Age.	Prematurity	Atelectasis	Other Conditions.	Total
Over 1 month	3	—	—	3
2-4 weeks	—	—	1	1
1-2 weeks	2	—	—	2
Under 1 week	23	8	11	42
Total	28	8	12	48

Investigation of the diets of 23 out of 24 fatal respiratory cases showed that 16 had been bottle-fed while only 7 had been breast-fed. Similar investigation of seven of the babies who died from gastro-enteritis revealed that every one had been bottle-fed. It is impossible to emphasise too much the supreme value of natural feeding.

Overcrowding, bad houses, and dirty houses were a feature in a high proportion of each group of deaths : for example, housing conditions were unsatisfactory in 10 out of 23 respiratory cases studied.

When the deaths during 1945 were analysed it was mentioned that a distressingly large number of the infants had never been brought to the clinics. On the whole this feature was much less obvious in 1946 ; and the increasing popularity of the child welfare clinics probably provides a partial explanation of the fall in the infant death-rate.

In the prevention of conditions like prematurity and malformations three outstanding factors are good nutrition of the mother, good ante-natal care, and good obstetrics. In almost half of the cases where death was ascribed to prematurity the mothers had never visited the ante-natal clinics.

Of the premature deaths six occurred in the Mansfield General Hospital, eight in the Victoria Hospital, and the remainder at home. Having regard to the numbers of premature babies cared for in each place, it would seem that a premature infant has a far better chance of survival in the Victoria Hospital than elsewhere ; but we require to press for more accommodation at that hospital.

In the 1945 Report, after making a detailed analysis of infant deaths, I presented ten suggestions which might contribute to a further fall in the infant mortality rate. It is interesting to consider what progress has been made along these lines :—

(a) Establishing additional antenatal clinics.—You established one in October of 1946 and just after the close of 1946, you decided to establish another.

(b) Increasing the number of Health Visitors. —You had already agreed in 1945, to increase the number to five. In 1946, you appointed a fifth health visitor and soon after the close of the year you decided to raise the establishment to six.

(c) Making the clinics more attractive in appearance.—Owing to shortage of labour comparatively little has yet been done in this direction.

(d) Publicising the clinics adequately.—Much has already been done in this field but the value of the clinics cannot be sufficiently stressed : there are still too many expectant and nursing mothers who do not seem to be aware that advice by doctors with special training and experience can be obtained, free of charge, at the various clinics. (In this connection it is to be hoped that a book on the development of the health services of Mansfield, shortly to be published by the local branch of the National Association of Local Government Officers, will afford further publicity to the clinics).

(e) Stressing that breast feeding is the best feeding.—Your midwives, health visitors, and doctors certainly do their best, but the advertisers of artificial foods have made the public " bottle-conscious " ; and of course those young mothers who seek to return to work soon after pregnancy find artificial feeding a great convenience.

(f) Further developing the scheme for the care of premature babies. The scheme is working fairly well but further development depends on the next item.

(g) Pressing for more accommodation for maternity cases and for premature infants.—Unfortunately, accommodation is still scanty.

(h) Emphasising the serious nature of measles and whooping cough.—This has been done to a considerable extent. Also immunisation against whooping cough has been started.

(i) Hospitalising selected cases of measles and whooping cough.—A few cases have been treated in hospital.

(j) Building houses as rapidly as possible.—Within the limits fixed by shortages of materials and of manpower everything possible is being done.

Additional measures would include blood examinations for the Rhesus factor (since Rhesus incompatibility is a potent cause of stillbirths, early infant deaths, and maternal illness) and establishment of a birth control clinic (to facilitate proper spacing of pregnancies, and to discourage pregnancy in cases where it was likely to damage the mother's health or to cause the birth of a badly diseased child). Soon after the close of 1946, you decided to institute Rhesus examinations in selected cases and to establish a birth control and sub-fertility investigation clinic.

It would appear, then, that due progress is being made in the prevention of infant deaths,—a progress which is shown by these figures :—

	1944	1945	1946
Total infant deaths	73	48	44
Infant deaths per 1,000 births	72.5	53.7	46.5

Cancer Deaths.

As advances in medical knowledge, improvements in hygiene, and better social conditions decrease the number of deaths of children, the diseases of the middle-aged and elderly acquire greater prominence ; and the most common of the dangerous diseases of middle-age is cancer.

In 1946, there were 67 deaths from this disease, as compared with 76 in 1945, and 80 in 1944.

Arranged in decennial periods, these deaths occurred as below :—

	1946	1945	1944
Under 40 years	3	3	4
40 to 50 years	4	16	10
50 to 60 years	13	13	12
60 to 70 years	21	21	30
70 to 80 years	21	22	17
Over 80 years	5	1	7

The decreased number of deaths, and particularly the fall in the number of deaths in the earlier age-groups, is pleasing ; but it must be emphasised that cancer is not necessarily a fatal disease. Indeed, given reasonably early diagnosis and prompt treatment, the disease is definitely curable. Cancer in its early stages is a strictly localised disease. Too often a death from cancer is the result of the patient having delayed month after month before seeking medical advice.

Not every painless lump in the breast is early cancer ; not every unhealing ulcer of the lip or tongue is cancerous ; persistent hoarseness does not necessarily mean cancer of the throat ; a change in the regularity of the bowels need not mean cancer ; in women a flow of blood at other than the usual monthly periods may have many causes apart from cancer. But if people with these symptoms sought early medical advice, then the relatively small proportion suffering from early cancer could be found and treated while the disease was still curable.

Age and sex incidence, together with parts affected, will be found in the following table. With regard to sex incidence, it is interesting to note, that—although in Britain generally more women than men die of cancer—Mansfield has had a slight preponderance of male deaths in most recent years.

AGE.	MALES.	FEMALES.	Stomach	Bowels	Rectum	Liver	Bladder	Tongue	Mouth	Nose	Gland Parotid	Pancreas	Lung	Breast	Uterus	Ovaries	Prostate	Scalp
31	2				1								1					
34	1		1															
41	1	1			1									1				
42	1	1				1									1			
50		1												1				
52	1			1														
54	1	2							1					1	1			
55		1												1				
56	3			1					1				1					
58	1					1												
59	1	2	1	1									1					
60	2	1	1			1							1					
61	4			1	1								2					
62	1	1				1											1	
63		1	1															
64	1								1									
65	2	1	1		1							1						
67		2			1									1				
68		1		1														
69	3	1						1		1	1	1						
70	2		1						1									
71	2	1			1			1	1									
72	1	2	1												1	1		
73	1	1		1													1	
74	1																1	
75	1						1											
76		1	1															
77	4	2	1	2	1									1			1	
78	2								1								1	
80	1							1										
81	1	1					1											1
82	1	1		1	1													
	42	25	9	9	8	4	2	3	6	1	1	2	6	6	3	1	5	1

Analysis of the sites of the disease shows that the largest incidence occurred in the stomach, bowels and rectum. The occupations of fatal cases are shown in the following table :—

MALES.	
Coal Miner	7
Coal Miner (retired)	3
Colliery Banksman	1
General Labourers	5
Factory Water Softener	1
Blacksmith	2
Painter's Works Manager	1
Sand Quarryman	1
Stone Sawyer	1
Quarry Worker	1
Saw Grinder	1
Gas Worker	2
Miners' Rescue Worker	1
Hosiery Hand	1
Colliery Managing Director	1
Secretary	1
Sub-Postmaster (retired)	1
Iron Moulder	1
Innkeeper	1
Stationmaster	1
Hairdresser	1
Farmer (retired)	1
Railway Loco. Fireman	1
Foundry Stoker	1
Gardener	1
Fitters	2
No Occupation	1
	42

FEMALES.	
Housewives	12
Spinster (no occupation)	1
Widows	10
Housekeepers	2
	25

Control of Infectious Diseases.

DIPHTHERIA PROPHYLAXIS.

The Annual Report for 1945, contained a detailed description of the massive campaign conducted in that year. As the methods employed in 1945, had proved highly successful, the same methods were employed—slightly less intensively—in 1946. Consequently, to describe here the campaign and the methods of propaganda used would involve needless repetition. Anyone interested in these details can refer to last year's Report.

It is important, however, to consider the results of the immunisation drive, the incidence of diphtheria in Mansfield, the effects of immunisation and the future outlook.

(1). Results.

In the latter half of 1945, we had set ourselves a target of 1,200 immunisations during the half-year and had exceeded that target by almost 50%, raising the percentage of the child population protected to 72.6. Since about 900 surviving infants are born annually, to keep the percentage at the level of 72.6 would require about 330 immunisations each half year. During the first half-year of 1946, we aimed at one hundred above the replacement figure—i.e. at 430—and exceeded that target by 60. In the second half of the year we attempted to reach a figure of 800 and fell short by one.

It has to be realised, of course, that the higher the protected percentage becomes the more work is required to raise it further. At the beginning of 1945, we had 40% of the children still unprotected, and we managed to protect exactly 2,400 during the year. At the beginning of 1946, we had only 27.4% of children unprotected, and we contrived to immunise 1,289 during the year. By the end of 1946, only 21.4% of children remained unprotected.

The following table gives the number of children protected during the half year with—for the purposes of comparison—the number protected in previous periods.

Number of children protected during half year.

	Aged 0-4.	Aged 5-14.	Total
First half of 1943	157	142	299
2nd half of 1943	260	69	329
First half of 1944	286	139	425
2nd half of 1944	319	69	388
First half of 1945	323	233	556
2nd half of 1945	800	944	1744
First half of 1946	333	157	490
2nd half of 1946	480	319	799

The figures for the percentages of the population immunised by the end of each year are as follows :—

Percentage of child population protected.

	Aged 0-4.	Aged 5-14.	Aged 0-14.
End of 1943	29.6	66.1	53.4
End of 1944	40.4	71.6	60.0
End of 1945	54.2	83.0	72.6
End of 1946	56.0	92.6	78.6

(2). Incidence of Diphtheria.

Mainly as a result of immunisation, the incidence of diphtheria in Mansfield is declining. Before immunisation was introduced Mansfield had on an average 49 cases annually. The figures for recent years are :—

1939—54 cases.
1940—84 cases
1941—53 cases
1942—26 cases
1943—29 cases
1944—34 cases
1945—10 cases
1946— 6 cases

(Incidentally, at the time of writing this report—July, 1947,—we have had only one case in 1947).

The following Table shows the number of cases in protected and unprotected sections of the community :—

Cases of Diphtheria.

	Unprotected Adults	Protected Adults	Unprotected Children	Protected Children
1942	11	—	15	—
1943	9	—	20	—
1944	13	—	18	3
1945	2	1	5	2
1946	3	—	2	1

(3). Effects of Immunisation.

(a) SAVING OF ILLNESS.

We used to average 49 cases per year : 49 persons—mostly children—suffering from a lengthy and serious disease with an appreciable risk of death or of survival with permanently damaged hearts. To any unprejudiced observer it is obvious that immunisation has been the factor responsible for reducing the cases to 10 in 1945, and to 6 in 1946.

However, opponents of immunisation maintain (in defiance of all evidence) that immunisation is valueless and that the decrease in the number of cases is mere coincidence. They do not explain the "coincidences" that the decrease in the number of cases began in America when immunisation was instituted there, that the decrease began to appear in Britain and other European countries when immunisation was introduced, that during the war the decrease continued in Britain where immunisation was intensified whereas in countries where immunisation was discontinued diphtheria increased by leaps and bounds. They do not explain the "coincidence" that in Britain the decrease in the number of cases is most marked in the towns that are most highly immunised. But let us look at the Mansfield figures :—

In 1943, half the children were unprotected, and 20 of them developed diphtheria ; if immunisation were valueless we would expect about 20 cases in the protected children, but there was not even a single case. In 1944, some 43% of Mansfield children were unprotected (46.6% at the beginning of the year and 40% at the end) and 18 of them developed diphtheria ; if immunisation were valueless we would expect about 24 cases in the protected 57%, but there were only 3 cases. In 1945, one third of the children were unprotected (40% at the beginning of the year and 27.4% at the end) and 5 of them developed diphtheria ; if immunisation were useless we would expect about 10 cases in the protected two thirds, but there were only 2 cases. In 1946, one quarter of the children were unprotected and 2 of them developed diphtheria; if immunisation were useless we would expect about 6 cases in the protected three quarters, but there was only 1 case.

These figures speak for themselves. A parent who refuses immunisation for his child is wantonly risking the child's life and health. Immunisation has reduced the incidence of diphtheria from 49 cases to 6 cases; but if all parents allowed their children to be protected we would probably have only 2 or 3 mild cases each year.

(b) SAVING OF HUMAN LIVES.

In the twenty years 1902-1921, we had an average of over 5 diphtheria deaths annually. In the next twenty years by more skilful treatment and advances in medical knowledge the diphtheria death rate was reduced to about 2½ annually. There have been no important recent advances in the treatment of diphtheria; but for immunisation we should still expect to have about 5 fatal cases of diphtheria every two years. Yet our diphtheria death-rate for 1946 was nil.

In the last five years we have had 6 cases of diphtheria in protected children, and five of these were very mild. In the same period we have had 60 cases in unprotected children and eight of these children died.

Immunisation is saving lives steadily, but in the last five years 8 children died because their parents had failed to have them protected.

(c) SAVING OF MONEY.

The treatment of a single case of diphtheria costs the ratepayers a considerable sum. In my Annual Report for 1943 I estimated that immunisation was then preventing some 20 cases each year and saving the ratepayers over £500. Since immunisation is now preventing about 40 cases annually, and since costs of treatment have risen appreciably, I now estimate that immunisation is saving the town well over £1,000 each year.

(4). **Future Outlook.**

Each year (apart from slight changes due to emigrants and immigrants) the child population is increased by the number of surviving infants (about 900 annually on the present birth rate and infant death rate) and decreased by the number of children reaching adolescence (about 700 annually at present).

To keep the percentage of immunised children at its present level of 79 should not be too difficult : it simply involves immunising 710 children annually.

To raise the protected percentage appreciably is, however, a very different matter. We must remember that, if we have 79%protected, this does not mean that we have 21% in need of protection : for at any particular moment some 7-8% of the child population are babies too young to be protected. The remaining 13-14% need protection, but they include the "hard core" of conscientious objectors, incorrigibly lazy parents, and problem families. At the end of 1944, we had 60% of the children protected, so that—allowing for babies too young for protection—32% of the children still required protection ; the strenuous campaign of 1945, reduced that 32% to 20% ; and the efforts of 1946, reduced that 20% to 14%. It seems probable that an equally intensive effort in 1947, would only reduce the number to 10 or 11%.

The following points can legitimately be made :—

(a) About 16% of pre-school children and about 7% of all children are babies too young to be protected.

(b) The residue of people who persistently refuse immunisation is probably about 7% ; and the virtual elimination of diphtheria by immunisation makes it more difficult to convince people of the dangers of diphtheria.

(c) The maximum percentages that we can hope to obtain are therefore, in the neighbourhood of 77% of pre-cshool children, 93% of school children, and 86% of all children.

(d) With 92.6% of school children protected we have reached about as high a figure as we can reasonably expect to achieve.

(e) We can, however, anticipate that continued efforts will increase the proportion of protected pre-school children.

Immunisation gives an almost certain protection for three or four years, after which the protection appears to wear off very gradually. Many authorities now advise that, for perfect safety, a child who has been immunised in infancy should receive a single "reinforcing dose" just before he enters school. We have been offering this reinforcing dose in Mansfield for some time, but in our propaganda we have concentrated mainly on the initial immunisation.

I would suggest that the time has now arrived when, while actively continuing the campaign for the immunisation of pre-school children, we can profitably devote our main efforts in the case of school children to popularising the reinforcing dose.

WHOOPING COUGH PROPHYLAXIS.

In September of 1946, having been informed that the figures for diphtheria immunisation were now high enough to permit of a partial relaxation of the drive against that disease, and having been informed of the favourable reports on whooping cough immunisation given by such towns as Salford and Barnsley, you decided to introduce inoculation against whooping cough. In view of the fact that whooping cough immunisation has not yet acquired the certainty of diphtheria immunisation, you deemed it wise, while providing facilities for inoculation of any children whose parents desired such protection, to refrain for the time being from embarking on any campaign of deliberate propaganda.

The necessary vaccine having been procured, a weekly whooping cough immunisation session was instituted at St. John Street Welfare Centre in November. By the end of December, 7 children (i.e. those who had attended at the first session) had been completely immunised and 62 others were in process of being protected.

Thus we have started our attack on another of the dangerous diseases of childhood, and have perhaps paved the way for whooping cough ultimately becoming as rare as typhoid (once the commonest of all fevers in this country) or small pox or diphtheria.

CONTROL OF INFESTATION.

(a) Scabies.

School Nurses and Health Visitors (who worked in close co-operation) tried to persuade the families of Scabies victims to be treated in family units rather than as individuals. The treatment of individual cases is often highly unsatisfactory : for while John is being treated, his brother, Tom, is incubating the disease ; and before Tom is treated he perhaps passes scabies to his mother ; and while the mother is being treated, John, infected from her, is developing a second attack. Treatment of the whole family simultaneously (including those members who have not yet started to show signs of the disease) is much more likely to produce lasting results. The incidence of scabies in Mansfield is steadily declining largely because of the adoption of the family method of treatment.

As in previous years, by courtesy of the Education Committee, the School Clinic was used as the main centre, and treatment of pre-school and school children was carried out by the School Nurses. As a general rule each case was given two treatments with benzyl benzoate, although in selected cases the single treatment method was successfully employed.

In all 77 patients were treated at the School Clinic, making 282 attendances.

The decrease in scabies is revealed by the following table :—

	Cases treated at Clinic.	
	Patients.	Attendances.
1944	287	526
1945	185	344
1946	77	282

In previous years the Emergency Block of the Fever Hospital was used as a second line of defence, but in 1946, there was no occasion for its use.

In cases where attendances at a treatment centre was impracticable, patients were given materials for self-medication.

(b) Vermin.

Fleas have never been much of a problem in Mansfield, and the war-time increase in the incidence of lousiness was checked in 1944, (as mentioned in the Annual Report for that year) and succeeded by a definite decrease in 1945 and 1946. In the battle against the head louse Health Visitors and School Nurses again collaborated. Combs were on sale at the Clinics, the latest forms of treatment were available, and advice on treatment was readily given.

During their visits to the homes Health Visitors unobtrusively kept a look-out for lice and nits.

EPIDEMICS.

During the year Mansfield suffered from no epidemics and was indeed singularly free from infections. The number of notifications of infectious diseases in Mansfield is usually in the neighbourhood of 450-500 annually, and has never before, to my knowledge, fallen below 400. In 1946, the total number of notifications was only 297.

(1) **Scarlet Fever.** This was the only infectious disease that was at all prevalent during the year. There was no epidemic, but a moderate number of endemic cases occurred during each quarter of the year. The cases were scattered throughout the town, though—as Table II at the end of this Report will show—the East Ward had as many as the other wards combined.

In all there were 180 cases of scarlet fever, as compared with 259 cases in 1945, and 284 cases in 1943. Of these 180, 164 (or 92.2%) were treated in the Fever Hospital. There were no deaths and no serious complications.

(2) **Measles.** This dangerous disease tends to occur every second year, and 1946 was one of the non-measles years. Here are the figures for the last four years, showing the cycle of waves and troughs :—

	Cases of Measles.
1943	264
1944	88
1945	159
1946	43

Efforts are constantly being made—by posters, by information at clinics, by advice offered by health visitors in the home—to impress on parents that measles is a dangerous disease. Measles kills by its complications ; but if children with measles receive adequate care and early medical attention complications should become very rare.

(3) **Whooping Cough.** This equally dangerous disease also tends to occur every second year, and 1946 should have been an epidemic year. Actually the number of cases notified—24—was hardly greater than in a non-epidemic year. However, it seems probable that some cases escaped notification : for too often parents make the mistake of regarding this serious disease as a "trivial ailment" and of failing to seek medical attention.

It is to be hoped that, with the introduction of immunisation against whooping cough, the incidence of the disease will decrease even further ; but it must be stressed that, when it does occur, whooping cough is, like measles, a really dangerous condition.

During the year 4 cases of measles and 5 of whooping cough were treated at the Isolation Hospital.

(4) **Other Infections.** The few cases of other infections that occurred are given in Table II at the end of this Report.

FOREST FEVER HOSPITAL.

Staff Changes.

Appointments during the year—1 Staff Nurse, 1 Assistant Nurse, 4 Student Nurses, 3 Domestics.

Resignations during the year—1 Staff Nurse, 3 Student Nurses, 3 Domestics.

Staff (as at 31st December, 1946).

1 Matron, 2 Sisters, 2 Staff Nurses, 2 Assistant Nurses, 9 Student Nurses ; 6 Resident Domestic Staff, 11 Non-resident Domestics, 2 Gardeners, 1 Boilerman, 1 Ambulance Driver and 1 Lodgekeeper.

Posts vacant at 31st December, 1946—1 Staff Nurse.

Matters of Policy.

(a) The policy of reducing the length of stay in hospital of individual cases to the minimum compatible with safety was continued. This policy certainly did not cause any spread of infection : indeed, as already mentioned, the number of notifications of infectious disease in Mansfield in 1946, was far lower than ever before.

Financially this policy has effected the following saving :—

	No. of days of hospitalization saved	Approximate Saving in money
1944	2965	£1,800
1945	2314	£1,450
1946	1181	£800

(The apparent decrease in the saving this year is due to the fact that there were far fewer Mansfield patients treated in hospital : the saving on 193 local patients in 1946, is naturally less than the saving on 288 local patients in 1945).

(b) The policy of offering hospital treatment to selected cases of measles and whooping cough was continued, four cases of measles and five of whooping cough being admitted.

(c) Beds freed by the shorter stay of patients and by the increased healthiness of Mansfield were placed at the disposal of other Local Authorities. Here are the numbers of "outside" cases for 1946 and previous years :—

	No. of patients from outside Mansfield.
1942	23
1943	26
1944	96
1945	93
1946	123

It is interesting to notice that the number of outside cases has now risen to such an extent that approximately two fifths of the total patients are from outside the Borough.

(d) You had already provided good accommodation and good conditions for the nursing and domestic staffs, but in April you passed certain resolutions for the further benefit of the staff. You decided to equip a guest room where members of staff could receive their friends ; to instal a public telephone in a convenient part of the Home ; to provide—as soon as the medical staff could be enlarged—a complete medical service for nurses and domestics ; to sanction the establishment of a Nurses' Representative Council, and to define its functions ; to sanction the establishment of a Domestics' Staff Committee, and to define its functions ; to sanction the living-out of Nurses and Assistant Nurses, subject to certain necessary limitations ; and to sanction a joint appointment of a Warden of the Nurses' Home and a Personnel Manager of Domestics, but to defer such appointment meantime.

Work of the Hospital.

A complete tabulation of the work of the hospital will be found below :—

	In Hospital 1st Jan., 1946	Admissions	Discharged	Died	Remaining in Hospital 31st Dec., 1946
Scarlet Fever ...	35	263	278	—	20
Diphtheria	2	13	13	—	2
Cerebro-Spinal Meningitis	1	2	3	—	—
Measles	—	4	2	—	2
Erysipelas	—	2	2	—	—
Whooping Cough	—	5	3	1	1
Pneumonia	—	4	3	1	—
Rubella	—	3	3	—	—
T.B. Meningitis	—	2	—	2	—
Chicken Pox	—	4	4	—	—
Miscellaneous	—	14	13	—	1
Totals	38	316	324	4	26

Average Stay in Hospital.

Scarlet Fever Cases	32.4 days
Diphtheria Cases	47.3 days.

Deaths in Hospital.

Among Mansfield patients there were no deaths. Four deaths of outside patients occurred, two being cases of Tuberculous Meningitis, one of Pneumonia and one of Whooping Cough complicated by Pneumonia.

Patients Treated.

The patients treated during the year included 193 Mansfield patients with diseases normally treated in Fever Hospitals and 123 patients admitted at the request of other Local Authorities.

Financial Aspect.

Although costs of food, fuel, equipment and wages have been steadily rising, the Isolation Hospital is actually costing the ratepayers less money each year. Here are the estimated expenditure and the actual expenditure for recent years.

	Estimate.	Actual Expenditure.
Year ending 31st March, 1946	£8,652	£8,442
Year ending 31st March, 1947	£8,458	£7,840
Year ending 31st March, 1948	£8,075	

It is particularly interesting to note that, although the estimate for 1946-47 was nearly £200 less than the estimate for the previous year, the total cost to the community for 1946-47 was £618 less than the original estimate.

Comparative Figures.

The following table gives the numbers of patients treated in recent years :—

	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Total patients treated	142	177	392	185	234	141	121	248	407	381	316
Patient days	6837	8591	13490	8021	8623	5268	4407	8048	11156	10933	10121
Daily average of Patients	18.7	23.5	37.0	22.3	23.6	14.4	12.0	22.1	30.6	29.9	27.7
*Scarlet Fever Cases	88	92	217	116	83	35	46	172	272	241	164
*Diphtheria Cases	32	72	126	53	82	53	25	29	33	10	6

*The Scarlet Fever and Diphtheria portion of this Table refers to Borough cases only.

Bacteriological Laboratory.

The following table shows the number of specimens examined in the Laboratory of the Public Health Department :—

Mansfield cases :	Positive.	Negative.	Total.
Diphtheria	15	478	593
T.B. Sputum, &c.	18	76	94
Gonorrhoea	—	5	5
Other	2	5	7
Total	35	564	599

Outside specimens were investigated as follows :—

	Positive	Negative	Total
Diphtheria	21	223	244
T.B. Sputum &c.	—	3	3
Other	—	1	1
Total	21	227	248

For comparison the totals for the previous year are given below :—

Mansfield specimens examined in 1945	788
Outside specimens examined in 1945	341

Tuberculosis.

Particulars of new cases and deaths from this disease in the Borough will be found below :—

Age Periods in years	New Cases.				Deaths.			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M	F	M	F	M	F	M	F
0-1	—	—	—	—	—	—	—	—
1-5	—	—	3	—	—	—	3	—
5-15	2	2	—	1	—	1	—	—
15-25	4	1	1	—	5	—	1	1
25-35	4	2	1	—	2	3	—	—
35-45	2	—	—	1	2	2	—	—
45-55	2	3	—	—	—	1	—	—
55-65	1	—	—	—	2	—	—	—
65 and over	1	—	—	—	—	—	—	—
Totals	16	8	5	2	11	7	4	1
Totals for previous year.	15	20	6	4	6	10	3	1

The number of new cases of non-respiratory tuberculosis—7, is satisfactorily small. The increasing use of pasteurised milk is probably the main factor responsible for the decrease in these cases.

There is also a satisfactory fall in the number of new respiratory cases ; 37 in 1944, 35 in 1945, and 24 in 1946.

The occupation of persons dying from Tuberculosis are as follows :—

MALES.		FEMALES.	
Hairdresser	1	Housewives	5
Railway Locomotive Fireman	1	Spinsters (no occupation)	2
Coal Miners	2	Scholar	1
Coal Miner (retired)	1		
Painter	1		
Scholar	1		
Electrician	1		
General Labourer	1		
Hosiery Worker	1		
A.C.2, R.A.F.	1		
Warehouseman	1		
Infants	3		
	15		8

91% of cases dying from Tuberculosis had previously been notified.

Midwives Acts (1902-19 6).

The number of Midwives practising in the Borough as at 31st December, 1946, was :—

Municipal Midwives	7
Resident in Borough Institutions	10
In private practice	2
Total	19

Notices Received during the Year 1946 :—

Forms of sending for Medical Aid	164
Notification of :—	
Still-births	10
Death of Infant	3
Death of Mother	—
Artificial Feeding	43
Liability to be a source of infection	10
Laying out of a dead body	2

In 1946 the number of claims submitted by medical practitioners on Medical Aid forms was 138 amounting to the sum of £158, 3s. 6d.

During the year ended 31st December, 1946, the sum of £609 14s. 0d. was received by the Municipal Midwives and paid to the Borough Treasurer.

Maternity and Child Welfare.

Extensions and Developments.

(a) Post War Scheme of Development. In January of 1945, the Council had given formal approval to a report on Post-War Needs which I had presented, and had sanctioned various extensions arising out of that report—increase in the number of ante-natal sessions from three to five, increase in the number of child welfare sessions from five to nine ; appointment of certain extra staff, etc. As mentioned in last year's Annual Report, in which these extensions are fully detailed, most of the extensions were not put into operation until 1946 because of the staff shortages throughout 1945. The items already sanctioned were brought into operation step by step ; it was not however, until the latter part of the year that sufficient progress had been made to enable you usefully to consider additional developments.

(b) Whooping Cough Immunisation. In September, when most of the extensions outlined in the Report on Post-War Needs had been brought into operation, you approved of the provision of Whooping Cough Immunisation as an additional Public Service. Details under this heading are given in the section of the Report dealing with the control of infectious diseases, but the matter is mentioned here as being related to Child Welfare.

(c) Blood Examinations of Expectant Mothers for the Rhesus Factor. At the end of the year you gave consideration to the question of providing a Blood Examination Service ; although your decision to provide such a service, and to institute an additional ante-natal clinic was not taken until after the close of 1946, it might be of interest to set out here the reasons which led you to decide in favour of establishing a blood examination service.

Until recently, a large number of still-births and early infant deaths was inexplicable ; the parents were healthy and environmental conditions satisfactory, yet the babies died before birth, or were born anaemic and jaundiced and with a poor chance of survival. During the war years a new factor, the Rh factor, was discovered in human blood, and gradually its relationship to the previously unexplained " Jaundice of the Newborn " (or "Haemolytic Disease of the Newborn ") has been established. Briefly it may be summarised thus. 85% of Europeans have the Rh factor in their blood and 15% lack it. If the mother's blood has the Rh factor the disease will not occur. If both parents belong to the 15% who lack the Rh factor, the disease will not occur. But if the mother's blood lacks the factor and the unborn baby inherits the factor from a father whose blood has the Rh factor, then there may develop an incompatibility between the mother's blood and the baby's blood ; and in these circumstances certain anti-Rh substances in the mother's blood plasma may destroy the baby's blood corpuscles just before birth, so that the child either dies before birth or is born anaemic and jaundiced. In the opinion of experts this Rh-incompatibility causes more infantile deaths (including still-births) and more infantile and maternal ill-health than any other single disease. If the condition is known beforehand, a great deal can be done—*e.g.*, by bringing on the delivery prematurely (before the baby's corpuscles are too much damaged) and by having available suitable blood to give the infant a blood transfusion immediately after birth. (It must be appreciated that the above description is an attempt to state simply a highly complex subject, for actually there is not one Rh factor but a whole series of Rh sub-groups ; but I think the simplified picture conveys the essential information.)

To ascertain the Rh position and to minimise the dangers of Rh trouble, the following procedure is desirable :—

(1) Take blood samples from all expectant mothers unless they are already known (*e.g.*, from a previous pregnancy or from previous blood examination for any other reason) to possess the Rh factor.

(2) Examine each sample in a specially equipped laboratory. (In this region the only laboratory equipped for this purpose is the Regional Blood Transfusion Laboratory at Sheffield, which is already doing twenty-five thousand such examinations annually for various Local Authorities.) If the blood possesses the Rh factor, as happens about seven times out of eight, nothing more is required.

(3) If the mother's blood lacks the Rh factor (as happens about once in every eight cases), examine the same blood sample for anti-Rh substances, and if necessary examine a second

sample later in pregnancy. If anti-Rh substances are not present, nothing more is required.

(4) If anti-Rh substances are present in large amounts (as happens about once in 160 cases), send the patient to a specially equipped hospital for confinement. (The specially equipped hospital in this Region is the Jessop at Sheffield, which works in collaboration with the Regional Laboratory).

Adoption of this procedure may well save five or six lives a year in Mansfield, and the procedure is not particularly costly. (The most expensive single item, the hospitalisation of six or seven patients at the Jessop Hospital, would be offset by the fact that most of these patients would in any case have been sent to a hospital).

To explain to an expectant mother why a blood test is desirable, to cleanse the arm, to withdraw a blood sample form a vein with due aseptic precautions, to complete the necessary form, and to pack the glass tube suitably for posting will all take an appreciable amount of time. Three or four such samples might occupy a doctor and a health visitor for half-an-hour. In these circumstances the establishment of a sixth ante-natal clinic is an obvious concomitant requirement.

(d) Family Planning Clinic. It has long been a blot on our civilisation that tuberculous women, or women suffering from serious medical conditions, should have to endanger their lives by bearing children simply because no facilities are available for contraception ; the birth of a child, often diseased or deformed, to an unhealthy mother whose illness is aggravated by the pregnancy, so that, even if she survives, she is unable to tend the child properly, is a tragedy ; and the absence of children from a home where they are both desired and desirable is an equal tragedy.

At the end of 1946 you gave consideration to the question of establishing a family planning clinic to assist in the prevention of further pregnancies where these would be inadvisable, and in the investigation and treatment of couples who desire children but have none. Your decision to establish such a clinic was actually not taken until after the close of 1946, but is mentioned here as the matter was under consideration before the year ended.

(e) Care of Premature Babies. The scheme outlined in 1945 was in operation throughout 1946. The main points are :—

1. Birth cards now provide space for recording the weight of a child at birth when this weight is 5½ lbs. or less.

2. Two " Sorrento " Premature Baby Cots have been purchased. When a child weighing 4 lbs. or less is born at home, a " Sorrento " cot is placed in an ambulance and the child is conveyed to hospital in this special cot.
3. When a premature child weighing over 4 lbs. is born at home, a " Sorrento " cot is loaned to the mother, and the child receives special attention from the midwives.
4. Dr. J. Wilkie Scott, of Nottingham, has been appointed as consultant paediatrician and is available to advise on any case when required.
5. Arrangements are made to ensure that, when a premature baby is discharged from hospital or when the midwife ceases to attend the house, the appropriate health visitor is notified and informed of the child's condition.

Details (regarding the number and condition of premature babies are given in a subsequent section.)

(f) HOME HELPS SCHEME. The proposed joint scheme, serving Mansfield, Mansfield Woodhouse and Warsop, which was mentioned in the Annual Report for 1945, did not materialise, and suggestions made by the Minister of Health about domestic help made it obvious that a larger scheme than had previously been visualised would have to be considered. You appointed a Sub-Committee to investigate the whole question, and the Sub-Committee's report (which was accepted by the Council, just after the close of 1946) contained the following recommendations :—

1. That in the opinion of this joint Sub-Committee, a scheme of Home Helps and Domestic Helps on the lines suggested in Circular 110/46 of the Ministry of Health, and in the Medical Officer's Report of 28th August, 1946, should be instituted in Mansfield.
2. That the minimum requirements for the successful initiation of the scheme are one full-time organiser, 4 full-time helps and 2 part-time helps, but that it may later be necessary to increase the number of home helps.
3. That, in accordance with the Minister's suggestions, the administrative work in connection with the scheme be carried out in a separately housed section of the Public Health Department ; that the renting or otherwise obtaining of a suitable office be entrusted to the Maternity and Child

Welfare Committee, and that the Medical Officer and Borough Surveyor be instructed to report to that Committee regarding a suitable office.

4. That the Chairmen of the Health and Maternity and Child Welfare Committees, and the Medical Officer of Health be authorised to purchase the requisite office equipment.

5. That advertisements be made for a woman organiser, of good general education, with training and experience in typewriting, book-keeping, record-keeping and office routine, and preferably with experience in interviewing members of the public or with organising experience ; that the salary be in accordance with Grade 1 of the National Scales (£330-£375) ; that the organiser's time be apportioned in the ratio of three parts to the Domestic Help Service and one part to the Home Help Service ; that the duties of the Organiser be as defined on page 5 of the Medical Officer's Report of the 28th August, 1946, and that the Chairman of the Health and Maternity and Child Welfare Committees with the Medical Officer of Health be empowered to make the necessary appointment ; subject, however, that no appointment be made until applications have been received from at least 4 full-time helps.

6. That advertisements be made for 4 full-time Helps and 2 part-time Helps at a remuneration of 1/5d. per hour ; and that the Medical Officer and the Organiser be empowered to make the necessary appointments.

7. That applications for help be submitted on a prescribed form which shall be countersigned by a medical practitioner or a district nurse or other officer of the local authority approved by the Medical Officer of Health.

8. That applications for Home Helps and Domestic Helps be granted in the following categories, subject to the circumstances of each case being approved by the Organiser or by the Medical Officer of Health :—

   (1) Maternity.
   (2) Old Age.
   (3) Infirmity.
   (4) Sickness.
   (5) Women responsible for care of young children and absent from home for a good reason.

9. That patients requiring the services of Helps be charged at the rate of 1/8d. per hour, subject to reduction in accordance with the under-mentioned scale.

10. That the scale of fees, according to Residual Income be as follows :—

Allowances to be Deducted from Total Family Income (including Family Allowances).

(a) Deduct 5/-d. in respect of each child.

(b) Deduct rent, rates, travelling expenses, etc., as at present.

Residual Income.

£2 0s. 0d. and under	No charge except maternity benefit (if received).
£2 0s. 0d. to £2 10s. 0d.	Charge one eighth plus maternity benefit (if received).
£2 10s. 0d. to £2 15s. 0d.	Charge one sixth plus maternity benefit (if received).
£2 15s. 0d. to £3 0s. 0d.	Charge one third plus maternity benefit (if received).
£3 0s. 0d. to £3 5s. 0d.	Charge one half plus maternity benefit (if received).
£3 5s. 0d. to £3 10s. 0d.	Charge two thirds plus maternity benefit (if received).
£3 10s. 0d. and over	Full charge.

11. That the Maternity and Child Welfare Committee be responsible for the normal administration of the service.

12. That the recommendations be submitted to the Ministry of Health, together with details of the estimated expenditure involved, and that the scheme be not put into operation until approval is received.

The Council's Scheme cannot of course come into operation unless it is approved, with or without alterations, by the Minister of Health.

Care of Illegitimate Children.

The scheme described in last year's Report was continued during 1946 and appeared to be working satisfactorily. Incidentally, it is interesting to notice that the illegitimate combined pre-natal and post-natal death-rate was lower than the corresponding legitimate rate.

Premature Babies.

During the year 31 premature babies were born at home. Six were transferred to hospital. Of the remaining 25, five died during the first day, and four others died during the first month, leaving 16 survivors.

Births and Deaths.

Birth-rate, Stillbirth rate and Infantile Death-rate will be found in the " Vital Statistics " in an earlier portion of this Report.

Attendances at Centres.

		Persons Attending.	No. of Attendances.
St. John's Street Centre :—			
Infant Welfare	(114 Sessions)	1716	7706
Ante-Natal Clinic	151 Sessions)	779	2959
Ultra-Violet Ray	(161 Sessions)	172	2462
Pleasley Hill Centre	(49 Sessions)	197	1318
St. Lawrence's Centre....	(102 Sessions)	1114	6675
Brownlow Road Centre	(51 Sessions)	345	2771

The total number of mothers and children attending the Centres during the year was 4,627 ; these made a total of 28,178 attendances.

These figures are not only the highest yet reached in Mansfield, they are almost unbelievably high when compared with the figures for even a few years ago. Until 1926 the number of attenders in any year was always below 2,000 ; until 1938 it was always below 3,000 ; in 1946 it reached the unprecedented level of 4,627. Twenty years ago the total annual attendances rose sharply to 14,000 ; ten years ago they had reached 17,000 ; now they have swollen to over 28,000. No better testimony could be offered to the popularity of the clinics.

Dinners for Necessitous Mothers and Children.

The number of necessitous cases has dwindled steadily in recent years. The figures for dinners provided at the Welfare Centre in 1945 and in the first nine months of 1946, are as follows :—

	Mothers attending.	Dinners for Mothers.	Dinners for Children.	Total.
1945	21	1489	295	1784
9 months of 1946....	11	680	226	906

In September of 1946 you decided that it was uneconomical to continue provision of dinners at the Welfare Centre, and that necessitous cases could equally well be given vouchers for free dinners at the British Restaurant. During the last three months of the year 48 such vouchers were issued to two mothers.

Health Visitors' Visits.

Visits paid by the Health Visitors during the year were :—

Visits to Infants....	3034
Visits to Children one to five years	5121
Visits to Expectant Mothers	335
Visits to Special Cases (Measles, Whooping Cough, etc.)....	44
Investigations of Stillbirths	26
Investigations of Infant Deaths	38
Miscellaneous Visits	98
Special Nursing Cases	14
Total	8710

The total number of visits paid in 1943 was 4,689, the total in 1944 was 6,959, and the total in 1945 was 8,421.

Eye Cases.

Thirty-nine cases were referred to Mr. Reid for examination and necessary treatment, as compared with 28 in the previous year.

Ophthalmia Neonatorum.

Two cases of this disease were notified during the year.

Throat Conditions.

Forty-three cases were submitted to the Specialist, and of these twenty-eight were found to require operation. Three operations outstanding from 1945 and seven operations on current cases were carried out during the year.

Until the School Health Services passed to the County Council in 1945, the tonsils scheme for pre-school children was run in conjunction with that for school children. Since 1945, few operations have been performed, and the fate of the pre-school children has perforce been the same as that of the scholars ; in both cases only very urgent cases have received operation, and the waiting lists of less urgent cases have grown steadily longer.

Maternity Beds.

278 cases were admitted to the County Hospitals at a cost of £2,171 18s. 5d. In addition, 24 cases were admitted to the Peel Street Hospital for Women, Nottingham, at a cost of £447 14s. 5d., and 12 cases were admitted to the Mansfield and District General Hospital, at a cost of £193 10s. 0d.

Thus in all, 314 cases were treated in hospital, as compared with 248 in 1945 and 273 in 1944.

The inverse correspondence of the maternal death-rate and the number of cases treated in hospital is an interesting coincidence :

Year.	Maternal death rate.	No. of hospital cases.
1942	4.56	164
1943	3.22	218
1944	2.89	310
1945	1.09	248
1946	0.00	314

Shortage of maternity beds remained a grave problem during 1946. Indeed, during the year you even sought permission to open a temporary Maternity Home, but the Minister of Health refused his sanction on the ground that the County Council had plans for a larger and more economical unit near the town.

Dental Treatment.

During the year 82 expectant and nursing mothers and 38 children received treatment ; a total of 120 individuals as compared with 91 in 1945, and 93 in 1944.

	Total.	Adults.	Children.
Extractions	510	416	84
Fillings	66	50	16
Other Operations (Scaling, Gum Treatment, etc.)	142	142	—

Attendances for Treatment.

	Adults.	Children.
Number attending	82	38
Number of attendances....	319	82

Provision of Dentures.

Twenty-seven dentures were supplied to mothers during the year.

Light Clinic Report.

In October the old Ultra-Violet Lamp was replaced by a modern Hanovia (Complete Form) Lamp.

During the year 161 Ultra-Violet Light sessions were held.

The following Table gives the conditions treated, together with the results of treatment :—

	Number of Cases	Cured or much improved	Stationary	No beneficial effect
Rickets	44	32	2	10
Debility	81	65	6	10
Malnutrition....	16	12	1	3
Bronchitis	24	18	—	6
Anaemia	7	6	—	1
Total	172	133	9	30
Totals for previous year	97	84	2	11

The total number of cases treated was far greater than in any previous year. While nearly 80% of the cases derived marked benefit from treatment, it is rather disappointing that in 17% no beneficial effect was noted : in more than half of the cases where no benefit was observed the attendances were irregular.

Day Nurseries.

During the war years you maintained, acting as agents of the Ministry of Health, two day nurseries at Bull Farm and Ravensdale respectively ; and these nurseries rendered valuable service, not merely in freeing mothers for war work, but also in making children healthier, happier and cleaner than they would otherwise have been.

In December of 1945 the Ministry informed you that, the emergency being over, it could no longer maintain nurseries : if a nursery was required in any community the onus of providing it must rest with the appropriate Local Authority. You accordingly gave consideration to the proportion of women likely to continue in employment in Mansfield ; to the needs of war-widows and other women who are obliged to work ; to the benefits conferred by nurseries on the only child (who often fails to learn to play at home) and the neglected child ; and to the beneficial effects of nurseries on the physical, intellectual, and emotional development of children. And you decided in January of 1946 to retain both nurseries as part of your Maternity & Child Welfare Service.

In April of 1946 you authorised your Medical Officer of Health to take the necessary steps to secure recognition of the nurseries as institutions which undertake the training of nursery nurses ; the necessary steps were taken, although the formal inspection of the nurseries by officers of the Ministry of Health and Ministry of Education did not take place until 1947.

Bull Farm.

Capacity : The Nursery has accommodation for 40 children, and the number on the roll is never permitted to exceed 50.

Staff : 1 Matron, 1 Deputy Matron, 1 Warden, 6 Nursery Assistants, 3 Domestics.

Number of Children (December) :

Under 2 years	12
2 - 5 years	32
Total	44

Ravensdale.

Capacity : The Nursery has accommodation for 40 children. The number on the roll is never permitted to exceed 50.

Staff : 1 Matron, 1 Deputy Matron, 1 Warden, 6 Nursery Assistants, 2 Domestics.

Number of Children (December) :

Under 2 years	12
2 - 5 years	27
Total	39

Water Supplies in 1946.

Fuller information is available in the Report of the Water Engineer, but the following summary is inserted here to comply with Circular 49/45 of the Ministry of Health.

(1) The water supply of the Borough is derived from two deep wells—Rainworth (depth 110 ft., boreholes 270 ft. below ground level), and Clipstone (depth 110 ft., boreholes 200 ft. below ground level).

(2) Extensions of water mains during 1946 were :—
1 mile 1406 yards.

(3) The water supply of the Borough has been satisfactory in quality.

(4) The water supply of the Borough has been satisfactory in quantity.

(5) Results of bacteriological examination.—No samples of raw water were taken. Twelve samples of water after chlorination were taken, and were satisfactory.

(6) Results of chemical analysis.—Twelve samples were taken and were staisfactory. The water is not liable to have plumbo-solvent action.

(7) Proportion of dwelling-houses and proportion of population supplied from public water mains :—

  (a) The supply is direct to houses in respect of 98.9% of houses, containing 99.3% of the population.

  (b) 0.9% of the houses (92 houses in all), containing 0.6% of the population, are supplied from the public mains by outside pipes.

  (c) 0.2% of the houses (18 houses in all), containing approximately 0.17% of the population, receive no supply from the public mains.

Housing Statistics for the Year 1946.

1.—Inspection of Dwelling-houses during the year.

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 1670

(b) Number of inspections made for the purpose 5457

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932 .... Nil

(b) Number of inspections made for the purpose Nil

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation .... Nil

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 1670

2.—Remedy of Defects during the year without Service of Formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 1357

3.—Action under Statutory Powers during the Year :—

(a) Proceedings under Sections 9, 10, and 16 of the Housing Act, 1936 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs 34

(2) Number of dwelling-houses which were rendered fit after service of formal notices :—

(a) By owners 23

(b) By local authority in default of owners .... Nil

(b) Proceedings under Public Health Acts :—	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	79
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—	
(a) By owners	62
(b) By local authority in default of owners	—
(c) Proceedings under Sections 11 and 13 of the Housing Act, 1936 :—	
(1) Number of dwelling-houses in respect of which Demolition Orders were made	—
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	—
(d) Proceedings under Section 12 of the Housing Act, 1936 :—	
(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	—
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—

General Provision of Health Services in Mansfield.

Since recent Annual Reports have necessarily been condensed to the extreme possible limit, and since the Health Services have undergone considerable extensions during recent years, a brief summary of the main services existing at 31st December, 1946, may be of interest.

(A) Ambulance Facilities.

(1) For Infectious Cases an ambulance and van with drivers are stationed at the Forest Fever Hospital.

(2) For Non-Infectious and Accident Cases, Mansfield has entered into combination with the adjacent Urban Districts of Mansfield Woodhouse and Warsop. The Ambulance Service for the area is controlled by a joint committee from the three local Authorities, with the Town Clerk of Mansfield acting as secretary to the committee and the Medical Officer of Health acting as officer in charge of the service. The Ambulance Depot is situated at Baum's Lane, Mansfield. Two ambulances (one owned by the Committee and one hired from the St. John Ambulance Brigade) and a car for sitting cases are maintained, and the staff includes a clerk and six drivers.

(B) Professional Nursing in the Home.

Generally this is discharged by members of the District Nursing Association to which an annual grant is made by the Corporation.

The work of this Association, which has now existed for nearly half a century, has been of considerable value to those requiring skilled nursing.

The district in the immediate vicinity of Bull Farm Estate is cared for by the Bull Farm Nursing Association. It provides skilled nursing for medical and surgical cases.

(C) Child Life Protection.

All the Health Visitors have been appointed as Visitors under the Child Life Protection Clauses.

A detailed form is completed when a new case is placed on the Register. Subsequently, a visit is paid every three months and the information obtained is placed before the Medical Officer of Health.

At the end of the year 1946, there were 3 children on the Child Life Protection Register.

(D) Home Helps Scheme.

This is described elsewhere in this Report.

(E) Orthopaedic Treatment.

The Maternity & Child Welfare Committee have arranged a complete scheme for the treatment of crippled children. This includes hospital treatment at Harlow Wood Hospital for cases requiring operation, and out-patient treatment for those requiring subsequent remedial treatment or observation.

(F) Domiciliary Midwifery Service.

The Corporation employs nine municipal midwives and a non-medical Supervisor of Midwives.

Each Municipal Midwife may act as a Maternity Nurse when a doctor has been engaged for the confinement.

As far as possible, each Municipal Midwife works within an allotted area, but if one midwife has booked an excessive number of cases, some amount of re-distribution may be necessary.

The Municipal Midwives are closely associated with the Municipal Ante-Natal Clinics, and are encouraged to accompany their patients when attending such Clinics for examination.

(G) Institutional Midwifery.

The Victoria Hospital can take 12 Mansfield cases each month. Cases are also admitted to the Peel Street Hospital for Women, Nottingham, and to the Mansfield and District General Hospital.

(H) Care of Premature Babies.

The arrangements are described elsewhere in this Report.

(I) Care of Illegitimate Children.

By arrangement with the County Council the inspection of illegitimate children is undertaken by a County Almoner, part of whose salary is paid by the Corporation, and whose work—in respect of the portion of her time devoted to Mansfield—is under the supervision of your Medical Officer.

(J) Maternity and Child Welfare Clinics.

Ante-Natal clinics are held at St. John's Street Centre on the afternoons of every Monday, Wednesday and Friday. A doctor is in attendance at each clinic.

Child Welfare clinics are held at St. John's Street Centre on the afternoon of every Tuesday and Thursday ; at St. Barnabas' Church Schoolroom, Pleasley, every Monday afternoon ; at the Methodist Chapel, Normanton Drive, on the afternoons of every Tuesday and Thursday ; and at Brownlow Road Chapel every Thursday afternoon. A doctor is in attendance at each clinic.

Ultra-violet light clinics are held at St. John's Street Centre on two mornings weekly.

Minor ailment clinics are conducted at St. John's Street Centre each morning.

(K) Diphtheria Immunisation Clinics.

Diphtheria Immunisation clinics are held at St. John's Street Centre on Wednesday mornings, and Tuesday and Thursday afternoons ; at St. Barnabas' Schoolroom on Monday afternoons ; at Normanton Drive Chapel on Tuesday afternoons ; and at the School Clinic, Ratcliffe Gate, on Thursday afternoons.

(L) Venereal Diseases.

The Venereal Diseases clinic at West Hill Drive is under the supervision of the County Council. Medical Officers' sessions are :- Males—Tuesday mornings and Thursday evenings ; Females—Tuesday afternoons and Wednesday evenings.

(M) Tuberculosis Dispensary.

The Tuberculosis Dispensary at Hermitage Avenue is also under the County Council. Sessions :—Women and children—Monday morning and Monday afternoon ; Men—Thursday morning; Employed persons—Thursday evening.

(N) Day Nurseries.

The Corporation maintains two Day Nurseries, at Bull Farm and Ravensdale, each with places for 40 children.

(O) School Clinics.

Consultation clinics, minor ailment clinics, dental clinics, eye clinics, etc., are held at the School Clinic, Ratcliffe Gate. Minor ailment clinics are also held at Rainworth and Pleasley Schools. For fuller details reference should be made to the reports of the School Medical Officer.

(P) Open Air School.

Berry Hill Open Air School has accommodation for 120 scholars. For further information, reference should be made to the reports of the School Medical Officer.

(Q) Institutional Provision for Unmarried Mothers.

An annual subscription is voted to the Mansfield and District Society for the Help and Protection of Girls, which is able to secure beds for approved cases. There is no other special institutional provision for unmarried mothers in the area, except that they may be received into the County Institution.

(R) Mansfield & District General Hospital.

This hospital has a total of 173 beds, allocated as follows :—

	Beds.
General Medical	31
General Surgical	69
Fracture Clinic	22
Maternity	4
Gynaecological	21
Orthopaedic	12
Ear, Nose, and Throat	14

This accommodation provides in-patient treatment for 87 males, 60 females and 26 children.

A Private Nursing Home is attached to the Hospital. This Home contains 29 beds,—16 for medical or surgical cases, and 13 for maternity cases.

A Rehabilitation Centre at Crow Hill Drive was completed in 1946.

(S) Victoria Hospital.

The County Public Assistance Institution in Mansfield has 229 beds and provides accommodation for maternity cases and for the chronic sick.

(T) Harlow Wood Orthopaedic Hospital.

This is a well-built and up-to-date hospital of some 360 beds, It is a volutary hospital but, relies to a large extent on fees paid by local authorities for the treatment of cases under orthopaedic schemes.

(U) Ransom Sanatorium.

This well built hospital for the treatment of tuberculosis is under the control of the County Council. It at present contains 165 beds but is in process of extension.

(V) Forest Isolation Hospital.

The Corporation's Fever Hospital consists of an up-to-date cubicle block, wards for scarlet fever and diphtheria (the latter ward being now disused), an old cubicle block, a hutted emergency ward, a small but well constructed operating theatre, and an excellent administrative block and nurses' home, There is accommodation for 68 patients.

(W) Laboratory Facilities.

Simple bacteriological work is undertaken at the laboratory attached to the Public Health Department. Specimens for biochemical examination or for more specialised bacteriological investigation are sent to Nottingham.

(X) Whooping Cough Immunisation Clinics.

Whooping Cough Immunisation Clinics are held at the St. John's Street Welfare Centre on Wednesday mornings.

Factories Act 1937.

Inspections made in Factories 128

Eighteen notices referring to contraventions were received from H.M. Inspector during the year and suitable action was taken in each case.

The following table gives the sanitary defects found in factories:-

PARTICULARS.	NUMBER OF DEFECTS.			Number of Offences in respect of which Prosecutions were instituted.
	Found	Remedied	Referred to H.M. Inspector	
Want of Cleanliness (S.1)	6	4	—	—
Overcrowding (S.2)	—	—	—	—
Unreasonable Temperature (S.3)	—	—	—	—
Inadequate Ventilation (S.4)	—	—	—	—
Ineffective drainage of floors (S.6)....	1	—	—	—
Sanitary Conveniences (S.7) :—				
Insufficient....	10	2	—	—
Unsuitable or defective	14	4	—	—
Not separate for sexes	—	—	—	—
Other offences	3	1	—	—
Totals	34	11	—	—

Report of Chief Sanitary Inspector.

Your Worship, Ladies and Gentlemen,

I beg to submit a report covering the work of the Sanitary Inspectors for the year 1946.

The most difficult problem during the year was that of securing much-needed repairs to dwelling-houses. The increasing number of complaints received concerning disrepair together with the shortage of building materials and labour, involved an increase of work in the Department which was out of all proportion to the results achieved.

The number of samples of food and drugs taken under the Food and Drugs Act was higher than in any previous year and of 174 samples submitted to the Public Analyst no less than 31 were found to be adulterated or otherwise gave rise to irregularity. The article of food most commonly found to be adulterated was milk and of 92 samples examined 21 were found either to contain added water or to be deficient in milk-fat, and it was necessary to institute legal proceedings in respect of 15 of these samples. Despite these somewhat disturbing figures I think it would be misleading if it were to be thought that adulteration of milk is on the increase; the probable explanation is that by an extensive use of the Gerber test in your Department, sources of adulterated supplies are being discovered which might otherwise escape detection.

The conditions under which ice-cream is manufactured received careful attention and, whilst the majority of samples of this popular food were found to be of a satisfactory bacteriological quality, the chemical composition of some left much to be desired.

Staff changes during the year tended to impede the work of your Department, and once again, as in the previous year, I have to record the unfailing assistance given by Mr. Spencer.

I beg to acknowledge your support and interest and also the generous co-operation and advice of the Medical Officer of Health.

Your obedient servant,

H. N. EARDLEY,

Chief Sanitary Inspector.

Summary of Work Done During the Year 1946.

Details of Notices Served and Complied with :-

	Served.	Complied with.
PUBLIC HEALTH ACT NOTICES	2144	1771
HOUSING ACT NOTICES	318	309
DEFECTIVE HOUSES	1670	1357
Roofs	370	271
Walls	350	243
Floors	117	.97
Ceilings	164	126
Windows	154	96
Fireplaces	235	158
Washing coppers....	76	58
Sinks renewed	6	4
Water supply	28	26
Rainwater pipes	244	164
Paving	286	187
W.Cs repaired	252	217
W.Cs additional provided	2	—
Drains cleansed	177	168
Drains repaired	85	77
Other	189	147
Houses cleansed	11	5
Houses disinfested of vermin	20	16
Nuisances from animals abated	6	6
Offensive accumulations removed	18	13
Dustbins provided	797	805
Rats and mice	1	1
Smoke nuisances abated	2	1
Overcrowding abated	4	4
Moveable dwellings removed	4	12
Food premises repaired or improved	25	18
Miscellaneous	14	3

NOTICES SERVED.

Number of informal notices served	2462
Number of informal notices complied with	2080
Number of Statutory Notices served	302
Number of Statutory Notices complied with :	
(a) by owners	182
(b) by Corporation in default of owners	105

Analysis of Statutory Notices served and complied with:-

	Served	Complied with	
		By Owners	By Corporation in default
Housing Act, 1936 :—			
Section 9	34	23	—
Public Health Act, 1936 :—			
Section 39	9	8	—
Section 40	2	2	—
Section 45	19	19	—
Section 56	13	10	—
Section 75	189	97	105
Section 92	36	23	—
Totals	302	182	105

Sanitary Inspectors' Visits during the Year.

GENERAL SANITATION.	No. of Visits.
Water Supply	79
Drainage	507
Stables and Piggeries	7
Offensive Trades	12
Fried Fish Shops	68
Houses Let-in-Lodgings	9
Tents, Vans and Sheds	36
Factories	121
Workplaces	2
Outworkers	18

Bakehouses	48
Public Conveniences	10
Theatres and Places of Entertainment	1
Refuse Collection	193
Rats and Mice	95
Smoke observations	5
Schools	1
Shops	14
Miscellaneous Sanitary Visits	81

HOUSING.

Under Public Health Acts :—	
Number of Houses inspected	1352
Re-visits paid to above houses	4285
Under Housing Acts :—	
Number of houses inspected	318
Re-visits paid to above houses	1172
Overcrowding :—	
Number of houses inspected	318
Re-visits paid to above houses	57
Verminous Premises :—	
Number of houses inspected	21
Re-visits paid to above houses	54
Miscellaneous housing visits	41

INFECTIOUS DISEASES.

Inquiries in cases of infectious disease	163
Visits re Disinfection	—
Miscellaneous Infectious Disease visits	106

MEAT AND FOOD INSPECTION.

Visits to Slaughterhouses	1333
Visits to Shops and Stalls	70
Visits to other premises	124
Visits to :—	
Butchers	105
Fishmongers and Poulterers	10
Grocers	71
Greengrocers and Fruiterers	11
Cowsheds	105
Dairies and Milkshops	170
Ice-Cream Premises	117
Restaurants	61
Street Vendors' and Hawkers' Carts	—
Milk—Bacteriological	245

Inspection and Supervision of Food.

I. MEAT INSPECTION.

No. of Animals Slaughtered and inspected.

Beasts	5782
Sheep	20768
Pigs	374
Calves	1804
	28728

The following statement gives details of Meat surrendered during the year. With the exception of small quantities of canned goods, the foods enumerated below were utilized by processing into animal feeding-stuffs or agricultural fertilizers. The work is carried out by waste product merchants who are under contract to the Ministry of Food :—

Carcases Condemned.

Number.		Disease.	Weight Tons	Cwt.	lbs.
71	Cows	Generalised Tuberculosis	17	6	102
2	Cows	Dropsy & Emaciation		6	48
1	Cow	Septic Peritonitis		4	12
1	Cow	Johnes Disease & Emaciation		2	27
1	Cow	Parturient Fever		4	52
1	Cow	Septicaemia		4	28
16	Heifers	Generalised Tuberculosis	3	13	84
1	Heifer	Sapraemia		4	62
1	Heifer	Medicine Taint		2	31
1	Heifer	Pyaemia		2	22
4	Steers	Generalised Tuberculosis	1	3	28

1 Steer	Fevered		4	66
1 Bull	Generalised Tuberculosis		7	34
13 Sheep	Moribund		6	26
12 Sheep	Dropsy & Emaciation		3	42
4 Sheep	Braxy		1	60
6 Sheep	Purulent Pneumonia		2	97
3 Sheep	Pyaemia		1	57
2 Sheep	Gangrene		1	3
1 Sheep	Injury and Fever			40
1 Sheep	Septic Peritonitis			80
2 Calves	Congenital Tuberculosis			70
6 Calves	Immature		1	91
1 Calf	Umbilical Pyaemia			54
1 Calf	Peritonitis			40
1 Pig	Generalised Tuberculosis		1	33
2 Pigs	Acute Swine Erysipelas		1	25
2 Pigs	Purulent Pneumonia		1	22
1 Pig	Moribund		3	14
1 Pig	Fevered			82
1 Pig	Pyaemia		2	36
		26	7	12

Parts of Carcase and Edible Organs.

Beef	Tuberculosis	6	1	89
Beef	Bone Taint		1	10
Mutton	Abscesses			75
Imported Mutton	Caseous Lymphadenitis		4	106
Pork	Abscesses			18
Beasts' & Pigs' Heads	Tuberculosis & Actinomycosis	11	4	30
Edible Offals	Various Diseases	28	8	91
		46	1	83

2. OTHER FOODS.

		Tons	cwts.	lbs.
Canned goods	....Unsound	3	3	50
Wet Fish	Do.		5	56
Cured Fish	Do.		10	56
Vegetables	Do.		7	16
Fruit	Do.		6	—
Butter	Do.			23
Eggs	Do.			13
Bacon	Do.			19
Cheese	Do.		3	62
Flour	Contaminated		2	70
Yeast	Unsound		2	—
Pudding Mixture	Do.		2	100
Baking Powder	Do.			29
Custard Powder	Do.			14
Sugar	Contaminated		6	15
Dried Fruit	Unsound		1	26
Prepared Foods	Do.		2	73
Biscuits	Do.			35
Walnuts	Do.		1	68
Tea	Contaminated			5
Lettuce	Unsound		4	32
Rabbits	Do.			111
Poultry	Do.			13
		6	1	102
Total Food Condemned	....	78	10	85

3. TABLE OF CARCASES INSPECTED AND CONDEMNED :-

1946	Cattle (excluding Cows).	Cows	Calves	Sheep	Pigs
No. Slaughtered	3731	2051	1804	20768	374
No. Inspected	3731	2051	1804	20768	374
All Diseases except T.B.					
Whole carcases condemned	4	6	8	42	7
Carcases of which some part or organ was condemned	1033	698	2	272	9
Percentage affected with diseases other than T.B.	27.7	34.3	.55	1.51	4.27
T.B. Only					
Whole carcases	21	71	2	—	1
Carcases of which some part or organ was condemned	792	940	4	—	13
Percentage affected with T.B.	21.7	49.3	0.33	—	3.74

4. SAMPLES TAKEN UNDER THE FOOD AND DRUGS ACT, 1938.

During the year 174 samples were submitted for analysis by the Public Analyst. The following table shows the nature of the samples and the results of the Public Analyst's examination :—

Details of samples taken during the year :—

Article	Number Genuine			Number Adulterated		
	Formal	Informal	Total	Formal	Informal	Total
Milk	86	6	92	21		21
Ice-cream		1	1		7	7
Butter	2		2			
Margarine	2		2			
Cooking Compound	1		1			
Cheese	1		1			
Jam	2		2			
Lime Jelly Marmalade	1		1			
Tea	2		2			
Coffee		1	1			
Pork Sausage	1		1			
Beef Sausage	1		1			
Brawn				1	1	2
Macaroni in Cheese and Tomato Sauce		1	1			
M. & V. Rations with beans		1	1			
Chocolates		2	2			
Chocolate pudding mixture		1	1			
Cake mixture		1	1			
Chocolate spread powder		1	1			
" Malto " bar		1	1			
Cake decorations		1	1			
Beef extract cubes		1	1			
Mashed potato powder		1	1			
Baking powder	1		1			
Lime Juice Cordial		1	1			
Genuine lard oil		1	1			
Cockles in vinegar		1	1			
Pure Malt vinegar with caramel		1	1			
Glycerine		1	1			
Butter flavour		1	1			
Milk Substitute powder		1	1			
Bemax		1	1			
Savormix		1	1			
Black Pepper		1	1			
Saccharin		1	1			
Confection of Senna		1	1			
Liquid of Life		1	1			
Mint Laxative tablets		1	1			
Chocolate laxative tablets		1	1			
Herbal blood enricher		1	1			
Infants' preservative		1	1			
Rheumatism tablets		1	1			
Ground tumeric		1	1			
Nerve tonic		1	1			
Ipecacuanna wine		1	1			
Spirit of Sal Volatile					1	1
Allysol		1	1			
Whisky	1		1			
Gin	1		1			
TOTALS	102	41	143	22	9	31

ACTION TAKEN IN RESPECT OF ADULTERATED SAMPLES.

Serial No.	Article	Adulteration	Action Taken
1	Milk	Contained 10% added water	Fined £1 1s. 0d.
2	Milk	Contained 2% added water	Do.
3	Milk	Contained 10% added water	Do.
4	Milk	Contained 10% added water	Do.
5	Milk	Contained 3% added water	Do.
6	Milk	Contained 5% added water	Do.
13	Milk	Contained 7% added water	Vendor warned.
30	Spirit of Sal Volatile	Incorrectly labelled	Vendor warned.
40	Milk	Contained 1% added water	Producer warned.
43	Milk	Contained 1% added water	This sample was bottled from a bulked supply of milk from several producers. Formal samples taken on delivery revealed the presence of water in the milk of one producer. (See serial Nos. 71, 72, 73, 74).
46	Milk	Contained 8% added water	Legal proceedings—Case dismissed
50	Milk	Deficient in milk fat 11%	Fined £1 0s. 0d & costs
51	Milk	Deficient in milk fat 12%	Do.
57	Milk	Deficient in milk fat 8%	Do.
58	Milk	Deficient in milk fat 15%	Do.
71	Milk	Contained 13% added water	Fined £2 10s. 0d. & costs
72	Milk	Contained 12% added water	Do.
73	Milk	Contained 11% added water	Do.
74	Milk	Contained 15% added water	Do.
77	Brawn	Contained starchy cereal filler	In the absence of any standard controlling the composition of this food, the facts were reported to the Ministry of Food, who proposed to confer with the appropriate Trade Associations with a view to the establishment of a legal standard.
79	Brawn	Do.	

Serial No.	Article	Adulteration	Action Taken
123	Milk	Contained 3% added water and 12% deficient in milk fat	Vendor warned
125	Ice-cream	Deficient in sucrose	In the absence of a legal standard controlling the composition of ice-cream, the facts were reported to the Ministry of Food.
127	Do.	Deficient in sucrose	
128	Do.	Deficient in fat & sucrose	
129	Do.	Deficient in fat & sucrose	
130	Do.	Deficient in fat & sucrose	
131	Do.	Deficient in sucrose	
132	Do.	Deficient in sucrose	
134	Milk	Deficient in fat 7%	Producer warned.
166	Milk	Deficient in fat 18%	Vendor warned.

5. GERBER TESTING OF MILK.

During the year 398 samples of milk were tested for chemical quality in your Department. This test provides a reliable means of detecting adulterated milk supplied and enables your Department to cover a much wider field of investigation than would be possible by employing the laborious and expensive procedure of formal sampling.

6. MILK SUPPLY.

Milk and Dairies Regulations, 1926-1943.

Number of farms producing milk	22
Number of wholesale milk producers	14
Number of retail milk producers	8
Number of retail milk purveyors	18
(excluding small shops selling bottled milk)	

All cowsheds and dairies are regularly inspected and during the year 275 inspections were made of these premises.

Milk (Special Designations) Regulation, 1936-1946.

There are four pasteurising plants in the Borough. During the year the supervision of graded milks was intensified and 245 samples were taken for examination compared with 133 in 1945. Full details of the results of the examination of these samples, appear in the following tables :—

Designation	No. of samples taken	Phosphatase Test		Methylene Blue Test	
		Pass	Fail	Pass	Fail
Pasteurised ...	157	153	4	152	5
Tuberculin Tested Pasteurised ...	54	54	—	54	—
Sterilised....	15	15	—	15	—
Totals ...	226	222	4	221	5

Designation	No. of samples taken	Methylene Blue Test		Coliform Bacillus Test	
		Pass	Fail	Pass	Fail
*Tuberculin Tested	15	11	4	11	4
Accredited	4	4	—	4	—
Totals ...	19	15	4	15	4

*This milk although sold in the Borough was produced and bottled in the south of the County.

The Council as the Licensing Authority issued the following licenses during the year :—

Pasteuriser's Licence (Holder Process)	2
Pasteuriser's Licence (Short time High Temp. Process)	2
Tuberculin Tested Pasteurised Licence (Holder Process)	1
Tuberculin Tested Pasteurised Licence (Short time High Temp. Process)	2
Dealer's Licence to sell Pasteurised Milk	30
Dealer's Licence to sell Tuberculin Tested Pasteurised Milk ..	3
Dealer's Licence to sell Tuberculin Tested Milk	1
Dealer's Licence to sell Accredited Milk	1

7. ICE CREAM.

(a) Bacteriological Quality (Cleanliness Tests).

During the year 43 samples of ice-cream were submitted to the Public Analyst for examination as to their state of cleanliness. Of these 37 were found to be satisfactory whilst the remaining 6 were, in the opinion of the Public Analyst, of an unsatisfactory bacterial quality. Appropriate action was taken by your officers in respect of the sources of the unsatisfactory samples and subsequent samples taken from the manufacturers concerned were of a satisfactory state of cleanliness.

(b) Chemical quality (Nutritional Value).

Fourteen samples were taken for chemical examination by the Public Analyst and it will be seen from the table given below that the composition of these samples fluctuated widely. It will be noted that samples 5 and 11 have high fat and sugar contents whilst those of samples 4 and 9 are particularly low. This may mean that the vendors of the former samples are trying to give the public as good value as is possible whereas the latter vendors may be trying to make their allocated materials go as far as possible regardless of fairness to the public. All of this clearly indicates the immediate need for legislation to control the chemical composition and price of this important article of food.

Sample Ref. No.	Fat %	Sugar %	Sample Ref. No.	Fat %	Sugar %
1	7.5	10.35	8	3.25	5.45
2	2.55	5.37	9	1.50	3.50
3	4.90	8.14	10	2.75	13.88
4	1.60	3.59	11	9.00	10.00
5	10.45	12.18	12	1.25	9.44
6	3.50	6.32	13	5.50	7.03
7	2.50	6.41	14	1.50	5.44

RATS AND MICE DESTRUCTION ACT, 1919.

INFESTATION ORDER, 1943.

The campaign against rats was vigorously and successfully pursued during the year. Various methods of rat destruction were used but poisoning after pre-baiting as recommended by the Ministry of Food was the method most generally employed.

The following summary indicates the extent of the work done :—

Visits made to premises for prebaiting	1682
Pre-baits laid on premises	3781
Visits made for poison baiting	447
Poison baits laid on premises	1246
Rat bodies found after poison baiting	748
Rats destroyed by dogs and trapping	468
Sewer manholes prebaited	399
Sewer manholes poison baited	148
Estimated total of rats destroyed.	4234

TABLE 1.

Vital Statistics of Whole District during 1946 and previous years.

Year	Population estimated to middle of each Year.	Births.			Total Deaths Registered in the District.		Net Deaths belonging to the District.			
		Un-corrected number	Net				At all ages		Under 1 year of age.	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate per 1000 Net Births
1935	46,620	705	670	14·3	688	14·7	468	10·0	46	68·6
1936	46,930	732	688	14·6	660	14·0	460	9·8	39	56·6
1937	47,080	744	684	14·5	684	14·5	444	9·4	56	81·8
1938	47,420	801	706	14·9	700	14·7	471	9·9	22	31·1
1939	47,760	918	737	15·4	826	17·2	545	11·3	46	58·6
1940	48,170	878	745	15·4	924	19·1	601	12·4	41	53·8
1941	48,920	868	729	14·9	800	16·3	506	10·3	46	62·3
1942	47,410	1044	837	17·6	852	17·9	525	11·0	40	47·7
1943	46,210	1049	902	19·5	841	18·2	530	11·4	50	55·4
1944	46,780	1200	1006	21·5	854	18·2	561	11·0	73	72·5
1945	47,030	1148	893	18·1	809	17·2	538	11·2	48	53·7
1946	49,150	1336	945	19·2	866	17·6	545	11.0	44	46·5

TABLE II.

Cases of Infectious Disease Notified during the year 1946.

Notifiable Disease.	Number of Cases Notified													Total cases notified in each locality.				Deaths.	Total cases removed to Hospital.
	At all Ages.	At Ages—Years.																	
		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over	North Ward including Pleasley Hill	Pleasley Hill alone.	South Ward	East Ward		
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	180	...	6	5	11	13	93	26	9	13	3	1	...	42	3	45	93	...	164
Diphtheria ...	6	...	...	...	1	...	...	1	1	2	1	...	...	1	..	2	3	...	6
Typhoid Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	11	...	...	...	...	...	...	...	1	1	2	4	3	2	...	6	3	...	2
Cerebro-spinal Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia ...	23	...	1	1	...		2	2	...	4	8	3	2	9	...	6	8	...	...
Ophthalmia Neonatorum	2	2	...	...	...	...	...	...	...	...	...	..	...	...	...	2	...	...	2
Puerperal Pyrexia*	7	...	...	...	...	...	...	...	...	7	...	...	...	3	1	3	1	...	3
Malaria	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
Measles ...	43	1	4	6	3	6	19	2	1	1	...	...	...	5	...	25	13	...	2
Whooping-cough ...	24	2	5	1	4	2	10	...	...	...	...	...	...	6	...	11	7	...	1
Totals ...	297	5	16	13	19	21	124	31	12	29	14	8	5	68	4	100	129	...	180

* 3 of these 7 were non-residents developing pyrexia in Mansfield Hospitals.

TABLE III.—CAUSES OF DEATH.

	Causes of Death.	All Ages. Males.	Females
	All Causes	283	262
1	Typhoid & Paratyphoid Fevers	—	—
2	Cerebro-spinal Fever	—	—
3	Scarlet Fever	—	—
4	Whooping Cough	—	1
5	Diphtheria	—	—
6	Tuberculosis of Respiratory System	11	5
7	Other Forms of Tuberculosis	3	2
8	Syphilitic diseases	1	—
9	Influenza	6	4
10	Measles	—	—
11	Acute polio-myelitis & polio-encephalitis	—	—
12	Acute infantile encephalitis	1	1
13	Cancer of mouth & oesoph (M), uterus (F)	6	3
14	Cancer of stomach & duodenum	4	5
15	Cancer of breast	—	6
16	Cancer of all other sites	32	11
17	Diabetes	—	5
18	Intra-cranial vascular lesions	27	42
19	Heart disease	80	84
20	Other Circulatory diseases	1	2
21	Bronchitis	26	29
22	Pneumonia (all forms)	13	7
23	Other Respiratory Diseases	5	2
24	Ulcer of stomach or duodenum	3	1
25	Diarrhoea, &c., under 2 years	3	—
26	Appendicitis	—	—
27	Other digestive diseases	4	7
28	Nephritis	3	3
29	Puerperal & post-abortion sepsis	—	—
30	Other maternal causes	—	—
31	Premature birth	10	4
32	Congenital malformation, birth injury, &c.	10	4
33	Suicide	8	2
34	Road Traffic accidents	3	4
35	Other violence	8	1
36	All other causes	15	27

TABLE IV.—INFANTILE MORTALITY DURING THE YEAR 1946.

Net Deaths from stated causes at various Ages under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under One month	1-3 Months	3-6 Months	6-9 Months	9-12 months	Total Deaths under 1 year
All Causes Certified	24	1	1	1	27	4	8	3	2	44
Uncertified	–	–	–	–	–	–	–	–	–	–
1 Measles	....	....	....	....	....	....	....	....	....	....
2 Whooping-cough	....	....	....	....	....	....	....	....	1	1
3 Diphtheria	....	....	....	....	....	....	....	....	....	....
4 Scarlet Fever	....	....	....	....	....	....	....	....	....	....
5 Influenza	....	....	....	....	....	....	....	....	....	....
6 Cerebro-spinal Fever	....	....	....	....	....	....	....	....	....	....
7 Tuberculous Meningitis	....	....	....	....	....	....	....	....	....	....
8 Tuberculosis, Intestinal	....	....	....	....	....	....	....	....	....	....
9 Other Tuberculous Diseases	....	....	....	....	....	....	....	....	....	....
10 Syphilis	....	....	....	....	....	....	....	....	....	....
11 Rickets	....	....	....	....	....	....	....	....	....	....
12 Meningitis (not Tuberculous)	1	....	....	....	1	....	1	....	....	2
13 Convulsions	....	....	....	....	....	....	....	....	....	....
14 Bronchitis	....	....	....	1	1	....	2	....	....	3
15 Pneumonia (all forms)	....	....	....	....	....	1	4	1	1	7
16 Other Respiratory Diseases	....	....	....	....	....	....	....	....	....	....
17 Gastritis	....	....	....	....	....	1	....	1	....	2
18 Diarrhoea	....	....	....	....	....	1	....	1	....	2
19 Hernia, Intestinal Obstruction)	....	....	....	....	....	....	....	....	....	....
20 Malformation	2	....	....	....	2	....	....	....	....	2
21 Debility, Sclerema	2	....	1	....	3	....	1	....	....	4
22 Icterus	1	....	....	....	1	....	....	....	....	1
23 Premature Birth	12	1	....	....	13	1	....	....	....	14
24 Injury at Birth	1	....	....	....	1	....	....	....	....	1
25 Disease of Umbilicus	....	....	....	....	....	....	....	....	....	....
26 Atelectasis	5	....	....	....	5	....	....	....	....	5
27 Lack of care....	....	....	....	....	....	....	....	....	....	....
28 Suffocation (in bed)	....	....	....	....	....	....	....	....	....	....
29 Other Violence	....	....	....	....	....	....	....	....	....	....
30 Other Causes	....	....	....	....	....	....	....	....	....	....

TABLE V.

Birth-rates, Civilian Death-rates, Analysis of Mortality, Maternal Death-rates and case-rates for certain Infectious Diseases in the year 1946. England and Wales, London, 126 Great Towns, 148 Smaller Towns, and Mansfield.

(Provisional Figures based on Weekly and Quarterly Returns.)

	M'nsfield	England and Wales	126 County Boro's and Great Towns including London	148 Smaller Towns (Resident Populations 25,000 to 50,000 at 1931 Census)	London Administrative County
	Rates per 1,000 Civilian Population				
Births :—					
Live	19.2	19.1	22.2	21.3	21.5
Still	0.48	0.53	0.67	0.59	0.54
Deaths :—All Causes	11.0	11.5	12.7	11.7	12.7
Typhoid and Paratyphoid Fevers	0.00	0.00	0.00	0.00	0.00
Scarlet Fever...	0.00	0.00	0.00	0.00	0.00
Whooping Cough	0.02	0.02	0.02	0.02	0.02
Diphtheria	0.00	0.01	0.01	0.01	0.01
Influenza	0.20	0.15	0.13	0.14	0.12
Smallpox	0.00	0.00	0.00	0.00	—
Measles	0.00	0.00	0.01	0.00	0.01
Notifications :—					
Typhoid Fever	0.00	0.01	0.01	0.01	0.01
Paratyphoid Fever	0.00	0.02	0.02	0.01	0.01
Cerebro-Spinal Fever ...	0.00	0.05	0.05	0.04	0.06
Scarlet Fever...	3.66	1.38	1.51	1.33	1.42
Whooping Cough	0.48	2.28	2.48	2.05	2.22
Diphtheria	0.12	0.28	0.32	0.31	0.24
Erysipelas	0.22	0.22	0.25	0.22	0.27
Smallpox	0.00	0.00	0.00	0.00	0.00
Measles...	0.87	3.92	4.73	3.70	7.35
Pneumonia	0. 46	0.89	1.02	0.74	0.75
	Rates per 1,000 Live Births.				
Deaths under 1 year of age ...	46.5	43	46	37	41
Deaths from Diarrhoea and Enteritis under 2 years of age	0.06	4.4	6.1	2.8	4.2
	Rates per 1,000 Total Births (Live and Still).				
(a) Notifications :—					
Puerperal Fever	—	8.50			1.62
Puerperal Pyrexia	7.22		10.35	7.63	9.68‖
(b) Maternal Mortality :—					
Abortion with Sepsis ...	0.00	0.13			
Abortion without Sepsis ...	0.00	0.06			
Puerperal Infections	0.00	0.18			
Other	0.00	1.06			

Abortion : Mortality per million women aged 15-45—England and Wales—

With Sepsis	11
Without Sepsis	5

‖ Including Puerperal Fever.

APPENDIX—LEGISLATION DURING 1946.

It would not be relevant to attempt here a review of the sweeping social legislation of 1946, but it may be useful to mention a few points where the new Acts affect the health of the townspeople or the health services under your control.

(1) Social Legislation Generally.

The **National Insurance Act, 1946,** lays down that every adult shall become insured, and that every insured person shall be eligible for unemployment benefit, sickness benefit, retirement pension, etc., and it materially increases the amounts of benefit payable. This Act, if taken in conjunction with the **National Insurance (Industrial Injuries) Act, 1946,** and the **Family Allowance Act, 1945,** should do much to eliminate the problem of want and should consequently raise the general health of the community. Unless these Acts are neutralised by gross food shortages or by inflation they should cause a great reduction in diseases due to poverty. They may also render superfluous certain small portions of the existing health services ; for example, if there are no necessitous mothers there will be no need to continue the provision of free dinners at the Welfare Centre or the British Restaurant ; again, for parents who feel unable to pay the normal charges for admission of a child to a Day Nursery, you at present require detailed income statements which have to be verified and assessed, but in future these income statements may become unnecessary.

(2) Medical Diagnosis and Treatment.

The **National Health Service Act, 1946,** seeks to provide a comprehensive medical service for the people of this country. The sections dealing with curative medicine should themselves have a profound effect on the health of the community, not so much in respect of preventing diseases as in respect of providing for early diagnosis and treatment.

In order to derive the maximum benefit from the new service it is desirable that we should frankly face the difficulties confronting that service. Here are a few :—

(a) In the past many people have—largely for financial reasons—delayed seeking medical advice until too late, postponing their visit to the doctor until early curable cancer or tuberculosis (for example) had become generalised. The financial reasons for delay will now be removed, but early diagnosis will not become possible unless people form the habit of consulting their doctors without delay. It is necessary, therefore, that those of us who are concerned with the health of the public should strive to educate the public regarding the value of early medical advice. Yet, on the other hand, if people begin to run to their doctors over trivialities, the medical men will be completely overwhelmed with work.

(b) In the past the doctors (whether engaged in preventative or in curative medicine) have been worked to capacity, and while many towns have been " underdoctored " very few have been " overdoctored " ; and a new Act does not create new doctors. Moreover, the diagnosis of an advanced disease is simple and speedy, while the diagnosis of an early condition often takes a great deal of time. Paradoxical though it may seem, a healthier community will require more doctors. Insufficiency of doctors may at first greatly reduce the benefits which could be conferred by the new Act. Yet to lower the standard of entrants to the profession or to reduce the long training would be a step in the wrong direction.

(c) At present many patients who should be in hospital are still at the stage of " thinking of calling in the doctor," and many others are merely " on the hospital waiting list." We will need more available hospital beds, but at present many hospital beds have to remain empty through shortage of nurses.

If we can solve these problems the health of the public should benefit vastly.

(3) Hospitals.

Under Part II of the **National Health Service Act. 1946,** all the Mansfield hospitals—voluntary, county and municipal—pass to the control of a Regional Hospital Board centred on Sheffield, and hospital service becomes free to all members of the community, except that an individual who wishes a private ward can normally obtain one by paying for it. The most obvious effects of this change are the ending of the existing contributory schemes, the ceasing of the non-contributor's worry as to whether he can afford an operation, and the stopping of that rivalry which often forced individual hospitals to spend money on what looked imposing (e.g. equipment for treatment of some rare disease) rather than on what was really necessary (e.g. an extra 2d. per day on patients' dietaries). It seems plain, too, that regionalisation will ultimately lead to more skilled treatment : instead of a general hospital undertaking all types of cases it will be possible to allot a few of the less common conditions to each of the larger hospitals in the region, so that the medical and nursing staff will acquire better experience in dealing with such conditions.

Circular 174/45 of the Ministry of Health was the first of a series dealing with nursing shortage and hospital administration. The booklet accompanying **Circular 189/45** on "Staffing the Hospital" pointed out that the shortage of nurses is about 30,000, laid down conditions of service for Nurses and Domestics, suggested that the appointment of a Warden to take charge of a Nurses' Home would help to secure the necessary sense of freedom from hospital discipline in off-duty hours, and advised the appointment of a Personnel Manager to control domestic staff, working with—but not necessarily under—the matron. And **Circular 217/46** made further suggestions about the appointment of a Domestic Supervisor and Welfare Officer.

If we look at hospital administration broadly we can see that a hospital will function most efficiently if it is large enough to have a medical administrator, a chief nursing officer, a domestic supervisor, a warden of the home, and a steward. At present the smaller existing voluntary hospitals cannot afford to pay for a medical superintendent, and the smaller municipal hospitals adopt the not altogether satisfactory arrangment of appointing the Medical Officer of Health as non-resident superintendent ; at present hospitals of 60 or 70 beds have to employ a matron although there is not enough work for a full-time administrative nurse ; and such hospitals of necessity leave the work of domestic supervisor and warden to the matron—so that the time of a highly trained nurse is largely spent on work unrelated to nursing, the duties of Personnel Manager of domestics are performed by someone with no training in personnel management or domestic science, and nurses in their off-duty are still under the eye of the person responsible for their work. Under the conditions of the new Act, it should be possible, by grouping of hospitals, to have Medical, Nursing and Personnel Officers each doing their appropriate work.

When the Act comes into operation you will cease to be responsible for Forest Hospital and cease to share responsibility for the joint Smallpox Hospital. Exactly how the Forest Hospital will function as part of a large composite unit is conjectural. From its geographical situation and from the fact that it is already drawing 2/5ths of its patients from outside the Borough, it seems obvious that it will become the Isolation Hospital for a considerable area ; but it appears unlikely that it will be expanded to a size large enough to justify a resident medical superintendent or even a resident matron. The probability is that for the immediate future the existing officers will be asked to continue their present duties (e.g. your Medical Officer of Health may be employed part-time by the Regional Board as non-resident Superintendent of the Fever Hospital) but that ultimately the hospital will be closely linked with the General Hospital or the Sanatorium, with a resident Charge Sister or Assistant Matron, a resident Warden and perhaps a resident Medical Officer. However, such problems are for the Regional Board to consider.

(4) **Existing Maternity and Child Welfare Services.**

Part II of the Act deals with Local Authority services (other than hospitals).

Under the new Act the Maternity and Child Welfare Services are transferred to County Councils and County Borough Councils. If Mansfield secures County Borough powers you will, of course, retain these services.

In the original Act it looked as though, if Mansfield failed to obtain County Borough powers, there would be a complete loss of the Maternity and Child Welfare Services, except for a possibility of delegation of Child Welfare to a Divisional Executive—on the lines of the existing delegation of Education. However, a recent circular (**Circular 118/47**) goes further : referring to Subsection (4) of Section 22 of the Act (i.e. referring to the section dealing with delegation of child welfare) it says :—

> " This provision was designed to secure continuity of the health services for children. Careful consideration of the best methods of organising the administration of the Part III services in some of these counties has raised doubt about the wisdom of regulations of the kind contemplated by Subsection (4), and has suggested that a better way of achieving the desired continuity would be to sub-divide all counties (except those where, either on account of the small size of the county or of other local considerations, de-centralised administration for the whole or part of the county would be inappropriate) according to local health requirements. In each sub-division,

the County Health Committee would use its powers under paragraphs 6 and 7 of Part II of the Fourth Schedule to the Act to appoint a Sub-Committee on which the Councils of County Districts comprising the sub-division would be represented, and to which would be delegated the day to day administration in the division, not only of the child care services specified in Section 22 (4). but of other Part II services also. Any scheme of de-centralised administration must obviously take account of local circumstances. Subject to that, the Minister contemplates that, under the County Medical Officer, executive charge of these services in the division will normally be taken either by an existing Assistant County Medical Officer, preferably one who is also Medical Officer of Health of one or more of the districts constituting the division, or by the Medical Officer of Health of one of these districts who would be appointed to the staff of the County Medical Officer."

In other words, the suggestion is that counties be subdivided into Divisions ; that each Division have a Divisional Sub-Committee and a Divisional Medical Officer ; and these take charge of all the ordinary health services under the County Councils.

(5) Home Nursing.

Under Section 25 of the Act the County Council or County Borough Council must make provision for home nursing, either by making arrangements with voluntary organisations or by themselves employing nurses. The home nursing service is to be provided free of charge to users of it.

Circular 118/47 suggests that if a Local Health Authority enters into arrangements with a voluntary organisation, " the Authority may be expected to bear a substantial portion of the cost of the services, and they will no doubt seek in return a reasonable share in the management of the services."

Although a little home nursing has been undertaken by voluntary associations, the new service is an enormous increase on the past. I do not know whether any exact means of calculating the number of nurses required has yet been worked out : one standard that has been suggested is one nurse per 400 families—which would mean nearly 40 nurses for Mansfield alone.

(6) Extension of Work of Health Visitors.

Until now Health Visitors have been primarily concerned with the care of mothers and young infants. Under Section 24 of the Act the Health Visitor's functions are extended to cover the health of the whole household and the measures necessary to prevent the spread of infection.

This extension of functions will automatically necessitate a considerable increase in the number of health visitors employed. The usual pre-war standard of 1 visitor per 250 annual births, and the later suggestion of one per 200 births are already out of date, but no alternative standard has been suggested.

Mansfield was well staffed with six health visitors for a population of 50,000 ; with the extension of health visitors' duties a population of 50,000 might require about 9 or 10 health visitors. Shortage of staff at first may well limit the benefits of the new Act.

(7) Health Centres.

The duty is laid on County Councils and County Borough Councils to provide and equip health centres, where several general practitioners can work communally, where the ordinary local authority clinics can be carried on, and where health propaganda can be employed.

The **Final Report of the New Towns Committee, 1946,** suggested that a town of 50,000 inhabitants would need 3 or 4 health centres, and there seems to be general agreement that a main health centre would require a site of 2½ to 3 acres while a district health centre would need 1¾ to 2 acres. (It is desirable that those responsible for town planning should be aware of these needs.)

(8) Vaccination and Immunisation.

The Vaccination Acts, 1867 to 1907, cease to have effect ; vaccination becomes—like immunisation—a purely voluntary matter.

Under Section 26 the duty is laid on County Councils and County Borough Councils of making arrangements for vaccination against smallpox and immunisation against diphtheria ; and permissive powers are given for immunisation against other diseases.

(9) Ambulance Services.

Provision of ambulance services also becomes a duty of the County Council or County Borough Council.

(10) Domestic Help.

Section 29 of the Act empowers a County Council or County Borough Council to provide domestic help, at a reasonable charge, where such help is required through illness, pregnancy or old age.

Circular 110/46 and **Circular 118/47** have stressed in this connection the importance of appointing an energetic full-time organiser of Home Helps and have made suggestions to facilitate the recruitment of the necessary Helps.

(11) Duties of Minor Authorities.

Having considered those items of legislation which will have a considerable effect on your health services or on the health of the people, I think it wise to end this review by indicating that non-county boroughs will not be deprived of all their health functions. Duties that will remain include—

(a) Supervision of food in all its aspects. This is an enormous field including on the one hand control of the quality of food sold—investigation of bacteriological purity, chemical analysis and examination of food for adulteration, study of suitable containers, hygiene of places where food is sold, the wrapping of food, the health of people handling food etc.; and including on the other hand the study of nutrition and health education on such themes as the proper feeding of the family—involving on the one side a study of the economic circumstances of the community and on the other side constant utilisation of new knowledge regarding vitamins and other dietetic constituents.

(b) Supervision of water and water supplies. Here again we have a vast field. It cannot yet be said that every house has a satisfactory water supply, and the possibility of water borne diseases is so great that detailed supervision of water supplies and constant examination of water is essential.

(c) Housing, including the abatement of overcrowding, the renovation of partially unfit houses, the determination of standards of fitness, the demolition of individual unfit houses, the formation of clearance areas, the determination of standards of density for new houses, the problems of slum clearance and of dealing with problem families, etc.

(d) Supervision of drainage, sewerage, refuse removal and the abatement of nuisances.

(e) Atmospheric problems, including the hitherto neglected field of smoke abatement and consideration of lighting, ventilation and the provision of open spaces.

(f) The study and control of infectious diseases. Certainly the hospital treatment of infections becomes a matter for the Regional Boards, but the bulk of the work of controlling epidemics will still remain in the hands of the minor local authorities.

(g) Environmental hygiene generally.—Including for example, such problems as the question of whether a central supply of hot water can be provided economically for a group of houses.

(h) Epidemiology or the study and control of disease as a mass phenomenon. So far we know very little about the incidence of diseases other than the common infections, and yet the fact remains that in any given month something like 5% of workers are absent from work for more than three days. There is a great deal to be done in the collection of statistics regarding not only such conditions as rheumatism and cancer but also a host of minor afflictions which cause in the mass such loss of working capacity to the community. There is much work to be done in determining how to reduce or prevent such diseases.

It is worth noting that these are big items that in recent years have had insufficient attention. The average Medical Officer of Health—busy with child welfare and hospital administration—has lacked time to investigate whether rheumatism was really caused by damp houses or whether overcrowding and poor standards of living played a bigger part in its causation, or to ascertain to what extent the incidence of bronchitis was related to the amount of smoke in the atmosphere ; the average Health Committee—busy with hospital reports and immunisation campaigns—has lacked time to consider whether washing facilities should not be provided free in public lavatories, or whether crematoria are not more hygienic than cemeteries, or in what type of neighbourhood a problem family of slum dwellers can be rehoused with the least likelihood of relapse.